Praise for the USA Cheer Cheerleading Safety Manual

"Cheerleading continues to play a notable role in college sports and in enhancing the student-athlete experience. The NCAA prioritizes health and safety within collegiate athletics and applauds the efforts of the AACCA in supporting safety awareness and training for college cheerleading coaches."

Brian Hainline, NCAA Chief Medical Officer
National Collegiate Athletic Association

"The National Federation of State High School Associations (NFHS) supports the efforts of AACCA to minimize risk of participation to all students in our nation's cheer programs. This Manual provides an excellent guide for conducting spirit activities in the proper environment. We are pleased to partner with AACCA in educational services that benefit coaches in structuring quality programs for their students."

Bob Gardner, Executive Director
National Federation of State High School Associations

"Higher Education Risk Managers have long advocated for safety to be a primary consideration in every athletic activity, including cheerleading. I applaud AACCA for updating a manual to this purpose. It provides an excellent guide for coaches in their effort to supervise a safe and successful cheerleading program, with a good understanding of the risks involved in not doing so."

Kathy Hargis, President
University Risk Management and Insurance Association

"The AACCA is to be commended on providing a comprehensive and complete Cheerleading Safety Manual for safer sport. This Manual is an essential safety awareness handbook and educational resource for managing risk by establishing fair and consistent rules and competition standards. Thank you to the AACCA and USA Cheer for your responsible leadership."

Sally S. Johnson, Executive Director
National Council of Youth Sports (NCYS)

Designs for Wellness Press

Cover Illustration and design by Eric Lindley

USA Cheer Cheerleading Safety Manual - 4th Edition

Gerald S. George, Ph.D.

USA Cheer
Cheerleading Safety Manual

Risk Management for Cheerleaders, Coaches, and Administrators



Previously published as the AACCA Cheerleading Safety Manual

Gerald S. George, Ph.D.
Editor

4th Edition

USA Federation for Sport Cheering
(USA Cheer)

CHEERLEADING SAFETY MANUAL

Risk Management for Cheerleaders, Coaches, and Administrators

4th Edition | © 2019

Formerly printed as the American Association of Cheerleading Coaches and Administrators (AACCA) Cheerleading Safety Manual

SENIOR EDITOR
GERALD S. GEORGE, Ph.D.

Professor Emeritus
University of Louisiana at Lafayette
Lafayette, Louisiana 70506

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info@usacheer.org
www.usacheer.org

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USA Cheer
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DEDICATED

TO ALL

ATHLETES

You continue to

inspire the world

with your

Leadership,

Spirit, & Skill

Message from the Director of Education

When the first American Association of Cheerleading Coaches and Advisors (AACCA) Cheerleading Safety Manual was released in 1990, none of the contributors could have envisioned what cheerleading would become in the 21st century. The increased skill level, the expansion across the globe, the foray into new disciplines such as All Star and STUNT, and the development of national and world governing bodies such as USA Cheer and the International Cheer Union would surprise anyone who was involved in cheerleading at the time that the AACCA was formed.

Since then, the AACCA went through a name change that replaced the word "Advisors" with "Administrators" to highlight the importance of including administrators in the task of safety programming. Furthermore, in 2018, AACCA would join the national governing body, USA Cheer, and expand its safety programs to help minimize risk to athletes around the country and internationally.

This safety manual is the work of both organizations. Even as the naming conventions change from "AACCA" to "USA Cheer", know that all of the expertise, passion, and dedication to safety remains. In fact, it has been reinforced with the resources available through USA Cheer to help continue the efforts that have led to cheerleading being safer than it has been since the implementation of tumbling, partner stunts, and pyramids.

In fact, cheerleading at the high school level has been shown to be among the lowest risk of 21 sports studied. Since the previous edition in 2006, catastrophic injuries in cheerleading have decreased drastically. This is due, in no small part, to the increased education amongst coaches and administrators as more states and organizations have required coaches' safety education.

Experts attribute these safety improvements to a complete, 360 degree approach that targets athletes, coaches, administrators, parents, and the medical community. It is vital that this emphasis on safety education continues, to continue the positive trends we have seen.

Director of Education and Programming, USA Cheer

Former Executive Director, AACCA



SENIOR EDITOR

GERALD S. GEORGE, Ph.D.
Professor Emeritus
University of Louisiana at Lafayette
Lafayette, Louisiana 70506

ASSOCIATE EDITOR

R. Scott Crouse
Former Program Director
USAG Women's Gymnastics
5228 South Hulen
Fort Worth, Texas 76132

ASSISTANT EDITORS

P. Brent Brown, Esq.
Brown & Jennings, PLC
30 Franklin Road
S.W. Roanoke, Virginia 24011

Janet L. Gabriel M.S.
Former Director
Education & Safety Development
United States Diving, Inc.
Indianapolis, Indiana 46225

James S. George, M.D.
Emergency Medicine
The Schumacher Group
Lafayette, Louisiana 70508

William D. Kieth, Esq.
Cardillo, Kieth & Bonaquist
Attorneys and Counselors
3550 Tamiami Trail East
Naples, Florida 34112-4905

Brent Klaus, Director
International Sports Camps, Inc.
RD. 8, Box 8002
Stroudsburg, Pennsylvania 18360

Warren A. Perrin, Esq.
Perrin, Landry, & Delaunay
Attorneys At Law

CONTRIBUTING AUTHORS

Bill Ahern
Universal Cheerleaders Association
Memphis, Tennessee 38115

Steve Butcher
Sr. Director of Operations
Premier Athletics
Knoxville, Tennessee 37932

Richard P. Bunch
Manager, Biomechanics Laboratory Converse, Inc.
North Reading, Massachusetts 01864

Sherry Cooney
Former Cheerleading Coach,
University of West Georgia
Regional Development Manager, Varsity
Carrollton, Georgia 30117

Jeffrey Dugas, M.D.
Medical Director – USA Cheer
Andrews Sports Medicine
& Orthopaedic Center
Birmingham, Alabama 35205

Scott Elliott,
Director Athletic Ministries
Grace Evangelical Church
Germantown, Tennessee 38139

Jay Geist
Former Director Research and Development
Universal Gym Equipment Co., Inc.
Cedar Rapids, Iowa 52506

Linda E. Gooch
UCF Spirit Program Director
UCF Cheerleading Head Coach
University of Central Florida
Orlando, Florida 32816-3555

Christine Habeeb, M.Sc.
Sport Psychology School of Sport
University of Stirling
Stirling, Scotland,
United Kingdom, FK9 4LA

Karen Lew Feirman, DHSc., LAT, ATC
Director of Safety, USA Cheer
Memphis, Tennessee 38115

Kim LeBlanc, M.D., Ph.D.
LSU Health Sciences Center School of Medicine
New Orleans, Louisiana 70112

Jamie Meeks, MS, RD, CSSD, LDN
Director of Sports Nutrition
New Orleans Saints
New Orleans Pelicans
Metairie, Louisiana 70003

Roger J. McConkie, Esq.
Workman Nydegger
Salt Lake City, Utah 84111

Paul Morin, M.D.
Board Certified Orthopedic Surgeon
Bond Clinic
Winter Haven, Florida 33884

Leroy McCullough, Director
NCA College Program
USA National Cheer Team Coed Coach
Garland, Texas 75041

Tony Nash
Regional Development Manager - Varsity
Director of USA Cheer and
Coach of USA National Teams
Indiana University All-Girl Coach
Bloomington, Indiana 47401

Chris Opheim
Director of Spirit and Fan Engagement
Mississippi State University
Mississippi State, Mississippi 39762

Dennis O'Toole, Esq.
Baumgartner & O'Toole 5455 Detroit Road
Sheffield Village, Ohio 44054

Reiss Plauche', M.D.
Board Certified Orthopedic Surgeon
Covington Orthopedic Sports Medicine Institute
Covington, Louisiana 70433

John Rothlisberger
Three-time Olympic Gymnast
Four-time USA National
All-around Gymnastic Champion
Director of FlipFest
Crossville, Tennessee 38571

Scott Roth
Vice President Business Development
RESILITE Sports Products, Inc.
Sunbury, Pennsylvania 17801

Jomo K. Thompson
Head Cheerleading Coach
University of Kentucky
Lexington, Kentucky 40506

Greg Webb
Past Senior Vice President
Universal Cheerleaders Association
Memphis, Tennessee 38115

T. Lynn Williamson, B.S., J.D.
Deputy General Counsel
Human Resources University of Kentucky
Lexington, Kentucky 40506-0064

Steve Wright
UCA/NCA State Director
New England Region
Simsbury, Connecticut 06070

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CHAPTER 1

SAFETY

A Philosophy of Safety Awareness

By T. Lynn Williamson, J.D.

Today's cheerleaders are certainly not your mom's old school cheerleaders. With an astonishing and dramatic increase in popularity over the last 30 years from grade school through college, cheerleaders are ever present, supporting their athletic teams and community, performing routines at games, and often engaged in competition with other teams. **Probably the single most distinctive changing aspect of cheerleading has been its increased athleticism.** Today's cheerleader has to possess the strength of an elite athlete, the stamina of a track runner and the agility and grace of a gymnast.

Probable contributors to this trend were 1) the U.S. Department of Education's vigorous enforcement of Title IX of the Education Amendments of 1972 which resulted in increased acceptance and popularity of the female sport and competitions; 2) increased national television exposure to cheerleading competitions; 3) the movement of gymnastics skills into cheerleading; 4) the growth and popularity of "club" cheerleading, known as "All Star," with the accompanied increase in private training facilities, and 5) expanding male involvement in this activity across all levels. The general consensus is that this increased athleticism and popularity in cheerleading will remain.

Historically, cheerleaders performed very basic motions, toe-touch jumps, the splits, and clapping and would provide sideline entertainment; today's cheerleaders continue to be a focal point for leading the home crowd in support of their team. During breaks in game play, contemporary cheerleaders build rather complex pyramids using signs at the top to encourage the crowd to yell with them; tumble across a court or field with eye catching grace; build progressive partner stunts, and spell out words which the crowd yells. In captivating and retaining the attention of their fans, these cheerleaders become fundamentally instrumental in leading the crowd in unified support of their teams.

The crowd motivation activities of cheerleaders, the competitive nature of the activity, and the emergence of a new, independent athletic activity for today's cheerleaders seem to be a step ahead of administrators and cheer professionals. Such a realization emphasizes the need for taking appropriate actions to define and identify purposes, goals, standards of management, education, instruction and safety. **Due to the significant changes and increased popularity of cheerleading in recent history, the most important and most significant thrust which must occur in the immediate future is the emphasis on cheerleading risk management and safety awareness.** Effectively and appropriately addressing cheer programs and related safety issues is the focus of the remainder of this chapter as well as the ensuing chapters in this publication.

Too often in athletic activities, catastrophic injury is the catalyst to undertake a review of management and to emphasize safety awareness. Recognizing that an effective safety program is rarely, if ever, a result of passive awareness, the principles and concepts in this manual must be carefully considered by cheer participants as well administrators and coaches.

SAFETY: AN OVERVIEW

Safety is an attitude, a philosophy, and a responsibility. It is an applied analytical approach focusing on the assessment and anticipation of mishaps prior to their occurrence. It is a consistent, forward-thinking process of awareness and practice. Safety should be so common, so important to both athletes and coaches that it is a constant, natural, and integral part of every movement and every phase of the activity itself.

Cheerleading programs vary greatly from one institution to the next. Each program incorporates different levels of tumbling, partner stunting, and pyramid building in an effort to support their respective teams' sporting events. The level of competitive cheerleading also varies from program to program. Yet, these interrelated, yet distinct aspects of cheerleading, share two important elements. They each involve varying degrees of risks, and each require a defined safety program. The participants, administrators, and coaches must realize that even programs that involve little or no partner stunting, pyramid building, or tumbling need to be aware that risks still exist. The potential for injury to a cheerleader being "blind-sided" by a football player running out of bounds is just as real as those faced by cheerleaders who engage in elite partner stunting, pyramid building, and tumbling.

MANAGING THE RISK

In virtually every cheer program, there are three primary groups that should be intimately involved in risk management and safety awareness: 1) the cheerleaders themselves; 2) the coach; and 3) the administrator. All three have somewhat unique, yet interrelated responsibilities in the development and implementation of a comprehensive safety awareness program. The specific responsibilities for these persons who are the center of the cheer program are as follows:

These individuals are the CENTRAL FOCUS of all safety programming. Their mental and physical well-being should be paramount to all other program development. A goal of any safety program should be to insure that the cheerleaders become fully aware of their responsibilities for safety. These participants must be constantly reminded that they share a full and vital role for safe and controlled execution of their cheerleading activities within the parameters of the program's goals and limitations.

Coaches should be an active participant in the daily operation of the program and the primary implementer of safety training and awareness. She/he should be technically trained to instruct, supervise, and evaluate performance at a level commensurate with the goals of the program. Only when the coach serves as a constant reminder, a demanding observer and a careful implementer of the safety program will a truly effective program exist.

The Program Administrator (Advisor) should set clear expectations and limitations for the program. They should 1) evaluate the technical competency of the coach relative to those expectations; 2) assure that an adequate safety awareness program is implemented,; and 3) provide the necessary equipment, space, appropriate levels of insurance coverage, etc., to meet the program's goals. It should be noted that in many programs, especially at the high school and youth sports levels, the coach and the program administrator are often the same person.

CREATING A SAFE ENVIRONMENT

The development of a comprehensive safety awareness program and programming plan is essentially a four stage process: 1) recognizing the need for safety; 2) program assessment; 3) safety program implementation; and 4) continuous evaluation of the program.

1) **Recognizing the Need for Safety.** Unfortunately, there is a tendency for young people to see themselves as immune to serious injury. This perception often leads to a lack of respect for risk in general as well as a poor appreciation for safety practices. Therefore, it is essential that all parties involved understand as well as appreciate the inherent risks faced in cheerleading and develop a positive attitude toward safety as a way of maintaining these risks.

2) **Program Assessment.** As stated earlier, cheerleading programs vary greatly as do the risks they face. **There is no one correct safety program that will accommodate all institutions.** Therefore, an assessment of each institution's cheer program is essential before its needs can be fully understood. If an effective safety program is to be developed, it must accurately address these and other questions related to programming and risk. Typical areas of concern include:

   - What is the role and purpose of cheerleading at this institution?
   - In which events, sporting or otherwise, will the squad participate and what will be its role at those events (i.e., spirit leaders, entertainment, competition, etc.)?
   - What internal and external restrictions will affect the activities of the squad?
   - Is this institution adequately prepared in terms of facilities, finances, staff, etc., to support the proposed cheerleading program?
   - Is this institution selecting students capable of meeting the program's expectations and requirements?

3) **Safety Program Implementation.** Perhaps the most difficult phase in safety programming is the consistent implementation of the safety plan. Understanding and assessing a program's needs are essential, but that information must be translated into a consistent day in and day out practice.

4) **Continuous Evaluation of the Program.** After successful implementation of a safety program, it is easy to become complacent. It is recommended that every three to five years, a safety program review is conducted. As program goals or mission may change or as the level of athleticism of the participants may change, it is necessary to re-evaluate the effectiveness of the safety program.

Where does responsibility lie in the implementation of a safety plan and how do you know when you have succeeded? It is a shared responsibility between the staff and the cheerleaders. This is certainly true to the extent that the staff needs to provide a safety framework and cheerleaders need to take responsibility for their own actions within that framework.

The true measure of a successfully implemented safety program can be determined by the degree to which the responsibility for safety is shared by all. The distinction of a mature safety program is exhibited by the modified behaviors and attitudes of its participants. Maturity is evident when previously externally dictated awareness and behavior become internalized normalcies and a natural part of your organizational culture.

MAKING CRITICAL JUDGMENTS

It was stated earlier in this chapter that safety is an attitude, a philosophy, and a responsibility. Each of these three concepts is cognitive in nature and need to be initiated through specific behaviors. Some of the most important behaviors related to cheerleading safety fall within the boundaries of: 1) critical observation; 2) introspective judgment; and 3) programmed initiatives.

Critical observations leading to behavioral adjustments tend to involve external influences on cheerleaders and their environments. As we have asserted that safety is a shared responsibility, it follows that the observations listed below, as well as the resulting questions and answers, should be a shared responsibility also:

- Does the cheerleader have the physical ability to do the proposed activity safely?
- Is the cheerleader sufficiently healthy and rested to do the proposed activity safely?
- Is the cheerleader mentally prepared on the proposed activity to perform it safely?

These are important observations especially when applied to young adults experiencing the vigor of academic life and personal maturation.

Those questions just examined are likely to be posed by a coach or staff member. However, when the pronoun I is inserted into the question in the form of "am I?" it becomes a safety- conscious cheerleader's mature introspection. This type of honest introspective judgement is critical to any successful safety program.

DEVELOPING PROGRAMMED SAFETY INITIATIVES

Developing **programmed safety initiatives** is usually a staff responsibility. Activities focused on safe operational practices may have the greatest impact on the overall safety of the program. Some common programming considerations are listed below:

- the use of appropriate equipment and adequate facilities to perform activities safely;
- a sequential educational process involving progressive skill development;
- a proper warm-up and stretching routine prior to any activity; and
- the incorporation of a feedback and concern mechanism to alleviate interpersonal or other problems.

These are just a few examples of programming initiatives focused on creating a safe environment for cheerleaders.

The concepts of observation, introspection, and programming are certainly not intended to be considered as independent entities. They should be consistently examined as inter-related behaviors with the focus being an improved atmosphere for cheerleading safety. **Similarly, these concepts should be evolving and changing as the cheer program's goals and limitations evolve and change.**

A PHILOSOPHY OF SAFETY AWARENESS

1. **Probably the single most distinctive changing aspect of cheerleading is increased "athleticism."**
2. **Improved cheerleading management and increased safety awareness are fundamental thrusts which must be addressed in order to manage the inherent risks associated with cheerleading.**
3. **The cheerleaders are the central focus of all safety programming.**
4. **Safety programming in cheerleading is an attitude, a philosophy, and a responsibility of the coaches/supervisors and the school administrators.**
5. **The coach/supervisor should be an active participant in the daily operation of the program and the primary implementer of safety training and awareness.**
6. **The program administrator (advisor) should set clear expectations and limitations for the cheerleading program.**
7. **It is essential that everyone involved understand as well as appreciate the inherent risks faced in cheerleading and develop a positive attitude toward safety.**
8. **There is no one correct safety program that will accommodate all institutions.**
9. **Understanding and assessing a program's needs are essential, but that information must be translated into a consistent practice.**
10. **The true measure of a successfully implemented program can be determined by the degree to which the responsibility for safety is shared by all.**

Understanding & Assessing Legal Liability in Cheerleading

By Dennis M. O'Toole, Esq. & Roger J. McConkie, Esq.

CHAPTER 2

LIABILITY

What, you may ask, is a chapter on legal liability doing in a cheerleading manual? Unfortunately, being prepared for liability claims is now an important aspect of being prepared for cheerleading participation. Cheerleading, besides being one of the most popular participant activities in American history, can also be dangerous if the activity is not performed properly. The severity of the injuries can be and sometimes are, catastrophic. For this reason, careful consideration must be given to the liability exposure of the coaches, advisors and sponsoring institutions involved, and the steps necessary to protect against such exposure.

The focus of this chapter is to provide you with an overview of the various theories of liability and the precautions that should be considered to avoid or minimize exposure. The chapter is divided into nine steps which outline basic tort law and recommended steps for the readers' consideration.

STEP ONE: UNDERSTANDING THE THEORY OF LIABILITY.

The theory by which any individual or institution is found liable for injuries and damages to participants can be summed up in one word: "duty." Duty can arise from two sources: from express or implied contract and from tort law.

Contract. Simply stated, anyone who enters into a contract to do certain tasks or functions assumes the obligation to do so. If one violates those contractual provisions, they are liable for that breach; the damages are those which are the natural or probable consequences of the breach or the resulting damages that were within the contemplation of both parties at the time of the making of the contract.[1]

Tort law. Tort law is based upon the law of negligence. **Negligence** is defined as: "the unintentional failure to perform a duty owing to another, whereby injury or damage proximately results to another as a result of this negligence."[2] In other courts, negligence has been explained in this manner:

Negligence *is such an omission by a responsible person to that degree of care, diligence, and skill which is their legal duty to use for the protection of another person from injury as, in a natural and continuous sequence, causes unintended damage to the latter.*[3]

Negligence has four elements: 1) duty; 2) breach of duty; 3) damages; and 4) proximate cause.

Tort law arises out of the relationships between persons or organizations, or any combination thereof. **In cheerleading, anyone who has an obligation for the well-being or**

safety of another is held to have a duty to protect that person from foreseeable risks of harm or injury.[4] The relationship creates the duty. If that duty is breached and that breach of duty is the proximate cause of the injuries or damages sustained, then the injured party has a claim against the person or persons who committed the breach of duty. The value of the claim will, of course, depend upon the severity of the injury and the perception of the same by a jury.

How much duty does one have? How far does that duty go? These questions involve an understanding and discussion of the term **"standard of care." The law requires reasonable care, that is, care which a reasonable and prudent person would use to prevent an act from creating an unreasonable risk of harm to another.**[5] In understanding what would be considered "unreasonable risk," courts will review whether the risk of harm was foreseeable to a reasonably prudent person of like abilities and experiences. **Foreseeability, in turn, centers on what is reasonably expected, or anticipated, to happen.**

Often, the center of a legal dispute is in the area of the standard of care and foreseeability. As a result, experts are often called upon to testify and clarify what would be expected from a reasonable and prudent coach. It is important to note and remember that your conduct as a coach or administrator will be examined, in depth, by experts with a great deal of experience and credentials in the field of cheerleading, sports safety, gymnastics and related fields. The purpose of the review is for comparison.

Standard of care is most often determined by a comparison of what you did or did not do, with what others engaged in the same or similar activity, do or do not do. This is not necessarily confined to the community in which you live, but usually the broader "cheerleading community" that can encompass an entire region or all of the United States. **It is important to remember that while the amount of care in any one situation may differ according to the circumstance, the degree required does not change; the standard is that persons responsible must use ordinary care under all circumstances.**[6]

STEP 2: UNDERSTANDING THE THEORIES OF DEFENSES THAT MAY BE AVAILABLE TO YOU IN CASE YOU ARE SUED

There are a variety of defenses available to one charged with negligence in the performance, or non-performance of one's duties. **Those defenses include, among others: assumption of risk, contributory negligence, comparative negligence, sovereign immunity, intervening cause and statute of limitations.** Before considering any of the defenses that might be available in any particular case or set of circumstances, consider first whether the person injured is an adult or a minor. Injuries involving minors may negate the use of certain defenses which are available otherwise. Further, the defenses available may differ from one jurisdiction to another. Some of the most commonly asserted defenses are discussed below.

Contributory negligence. Was the person claiming injury also negligent to some degree in causing their own injury? Defenses that the student or participant was not paying attention or was fooling around at the time of his injury are examples of contributory negligence (i.e., that the negligence of the injured party contributed to the injury, and therefore the party against whom the claim is made should not be held accountable, regardless of the extent of the student's negligence).

Comparative negligence. Comparative negligence is a theory of legal defense which has been created by statute in many states. Under Comparative negligence, if an injured party was, in some degree, negligent in their actions and that negligence contributed to their injury, that will not automatically preclude them from recovering damages from other responsible parties. However the percent of recovery is reduced according to the comparative amount of negligence attributed to the plaintiff's actions. Further, if a court determines that individual's fault exceeds the combined fault of others, then that person would be denied recovery. Before the doctrine of comparative negligence, the common law rule was that there could be no recovery for injuries where the person injured was guilty of contributory negligence, regardless of degree.[7]

Assumption of the risk. This defense is commonly employed in defense of most negligence cases. However, it has been merged with the defense of contributory negligence under most state statutes whose jurisdictions have adopted comparative negligence.[8] The defense of assumption of the risk provides that a person who voluntarily brings about a condition or situation which is obviously dangerous, or potentially dangerous to him or herself, even if created by another, assumes the risk of injury and thereby relieves the other party from legal liability. For example, a person who buys a ticket for a baseball game with a seat along the third baseline assumes the risk of being hit by a thrown or batted ball. There is no liability for any injuries an individual receives in that event.

Sovereign immunity. Many states have adopted statutes which provide limited immunity for its political subdivisions (counties, school districts, etc.,) when sued under a theory of negligence. While there are exceptions to the general immunity, many statutory defenses under the immunity statutes are enumerated. As a general rule, if immunity is provided, any employee is also immune, unless reckless or wanton conduct has been proven. It is very common for school districts to utilize this type of defense in negligence cases.

Intervening causation. In a negligence claim, it is essential to create a causal link, termed "proximate cause," between the act being complained of and the injury sus-

tained. When defending a negligence claim, however, the causal connection between a defendant's alleged negligence and the injuries of the plaintiff may be interrupted by another cause or event. This is referred to as an intervening cause. If this intervening cause is a new and independent force with no direct relationship with the action being complained of, then the chain of causation is deemed broken and plaintiff will not recover under their original claim.

Stated another way, an intervening force is one which actively operates in producing harm to another after the actor's negligent act or omission has been committed.9 For example, two cars are involved in a minor traffic accident at a stop sign; neither car was going faster that 5 mph. Suddenly, a storm produces lightning strikes, which hits a tree, which then falls on one of the cars, killing a passenger. The storm and the resultant lightning are intervening causes of the passenger's injuries and death.

Statute of limitations. The defense of the statute of limitations is one where a defendant asserts that the plaintiff did not file their lawsuit within the time required by state statute. Most states require negligence actions to be filed within two or three years from the date of injury. These time limits are generally postponed or tolled in cases where a minor is injured, until the minor reaches the age of majority (18 in most states), at which time the statute begins to run. Failure to file a lawsuit within the time frames imposed by statute is fatal to the maintenance of a lawsuit.

STEP 3: UNDERSTANDING YOUR DUTY.

Whether the duty is by contract or application of tort law, or both, it is imperative that you understand what your duties are, both to the sponsoring organization or authority and to the participants involved in the activity. In this regard, read your contract if you have one. Are all of the terms and conditions clear and unambiguous? Does your understanding of the terms match the understanding of the other party to the agreement? Do you know what is expected of you?

Second, regardless of whether you have a written contract or not, discuss the expectations that you have and that the other party has relative to the tasks you are being asked to perform.

Third, in the absence of a clear and unambiguous contract, memorialize these understandings by letter, memo, or other written document and distribute the same to those involved.

Fourth, do this before you assume control and before you begin to carry out your tasks.

Fifth, understand what is expected of you with regard to reasonable care and the standard of care.

STEP 4: UNDERSTANDING THE DUTY OF OTHERS.

If you are a supervisor, it is important that you have a clear understanding of not only your duties, but also the duties of all of those individuals who work under your supervision. Clearly, it is the only way you can be assured that the level of supervision and training that is required for the tasks at hand are commensurate with the expected standard of care. You must understand their duties as well as your own.

STEP 5: VERIFY THE UNDERSTANDING OF DUTIES.

Do the people who work for you understand their duties? You may have an understanding of what they are, but do they? Remember that a chain is only as strong as its weakest link.

The failure of one of your assistants or volunteers to perform their assigned duties can be attributable to you, making you equally responsible.[10] This is known as the doctrine of respondeat superior. Consequently, you must make sure that everyone to whom you are delegating responsibility for some portion of the duties you have undertaken understands what their respective duties are. They should be able to verify to you exactly what they are to do prior to their assumption of their jobs. That verification should include: 1) what you expect them to do in detail; 2) the mechanics of how to perform the tasks in question; 3) the risks involved; 4) the level of preparation, both mental and physical, needed to carry out the task; and 5) an understanding of the skills, strengths and weaknesses of those with whom they will be dealing.

An example of the types of checklists you might want to develop under this step is outlined here in the briefest of forms and only for the purpose of illustration:

I. Assistants

(1) What are their qualifications?

(2) What are their experiences?

(3) What are their strengths?

(4) What are their weaknesses?

(5) Do they have physical and/or mental limitations that would restrict or prevent them from doing the task they will be assigned?

(6) Do they interact well with others?

(7) Are they able to concentrate?

(8) What is the level of commitment?

II. Spotters

(1) What are their qualifications, experiences?

(2) Are they physically strong enough to handle the tasks assigned?

(3) Do they have an understanding of the activities to be performed and what they must do and watch for?

(4) Do they have the mental capacity to be trained?

(5) Do they have the level of concentration necessary to perform?

III. Volunteers

(1) What are their qualifications, experiences?

(2) A clear understanding of their roles is essential.

(3) What are their physical limitations?

(4) Are they reliable, timely, committed?

(5) Are they controllable?

STEP 6: OBTAINING INFORMED CONSENT FROM PARENTS, GUARDIANS, AND PARTICIPANTS.

Before a student or participant begins their training with you and your staff, you must make sure that the parents, guardians, and participants themselves have a clear understanding of what the risks and exposure to injury are involved with participation in cheerleading in your program. The proper procedure is to have each parent, guardian, and participant sign a written consent form which contains all of the necessary acknowledgments.

What must the acknowledgment contain? First and foremost, the consent form must be clear and unambiguous. Legalese is fine for sophisticated parties armed with batteries of lawyers, but parents of students usually do not meet that criterion. Remember that the purpose of the form is "informed consent". If they don't understand what they are signing, there is a likelihood that the courts will not enforce the agreement later on. Depending upon the jurisdiction, consent forms signed by minors may be held to be unenforceable under a theory that the minor is not capable of providing informed consent.

Second, the form must accurately and completely describe the nature and scope of the activity in which their children are participating. Is it cheerleading? Does it involve gymnastics, tumbling, stunts? Will the participants travel with you in vehicles provided by you or the sponsor?

Third, what are the chances of injury and what types of injury are you referring to? Can it be fatal? Could it result in paralysis, broken bones, etc.? Remember that you need to be realistic here. If you are dealing with preschoolers who are learning how to tumble and do very basic gymnastics routines on a floor mat, little is accomplished by predicting death and dismemberment in a consent form. Likewise, minimizing the risk in college level cheerleading activities where sophisticated mounts and stunts are commonplace is just as ineffectual. The bottom line is that an informed consent and disclosure form must conform to the activity involved. One form is not as good as another.

Fourth, assuming that the participants are of youth or high school age and not legally independent, each parent, guardian and participant must acknowledge that they have had everything about the activity explained to them, that they understand the nature of the activity, the risks of injury, including paralysis and death (where applicable), and that they voluntarily consent to their child (and/or themselves) participating in that activity.

Fifth, the consent should also provide you and the sponsor institution with a release from liability in the case of injury, serious or otherwise, to their child. This is not a carte blanche for you to skate free if something happens to the cheerleading participant. While an agreement between parties to waive liability for ordinary negligence is usually valid, that is not always the case.[11] The key factor in the cases which invalidate the waiver is whether the party giving the waiver has had that provision in the contract brought to their attention and understanding. So, do not rely solely on the language of the consent agreement to save you from liability; it is not a guarantee.

This waiver is designed to allow you to assert an affirmative defense to any lawsuit filed against you by the parents of an injured child or an injured participant. Contrary to what many plaintiff attorneys argue, an injury to a participant does not necessarily mean someone (other than the participant) was negligent. The student may have been careless; the injury may have been the result of an unforeseen event or occurrence, or a dozen other explanations, all or any one of which would relieve you from liability. That's where the release comes in.

Sixth, make sure that everyone signs and dates the consent form. It is not enough to give them the form; it is not enough to have them acknowledge they received the form. They must sign and date it and return the original to you, where you will file it in a safe place for future reference should it be needed.

Some Final Words About Informed Consent.

Although there will be cases where this is impractical, try to meet with each parent and guardian and participant and go over the form with them. Have them verbally tell you they understand what that form contains. Nothing assists the defense lawyer more than a client who can take the witness stand and clearly and unequivocally tell a jury that he or she sat down with the parents of the injured child and explained the informed consent form to them and that the parents acknowledged both verbally and in writing that they understood and agreed to what that form said. Understand that not only does this reinforce your professionalism, it also takes away many arguments by the plaintiff's counsel that their clients did not understand, that they were at a disadvantage that you never really explained, etc. It is a devastating weapon of defense readily available to you if you take the opportunity to use it. (See the Online Appendix —Participant Release and Waiver Form and Informed Consent and Acknowledgment Agreement).

STEP 7: PARTICIPANT DEMONSTRATION; COACH'S JOURNAL.

As a preliminary to accepting the applicant into your program, whatever it might be, have each participant demonstrate their readiness to participate. This may be as simple as having them perform basic calisthenics. Once accepted into the program continue to have them demonstrate their readiness to advance to the level required and to record that level of ability in your coach's notes or journal.

The coach's journal is one of the most valuable tools (and evidence) you can have available to you in the event of litigation. By recording the progress and abilities of participants, you can journalize your duties and responsibilities toward them. However, you should also understand that keeping a journal can also be the very tool needed to show a violation of the standard of care required of you. Care must be taken in deciding whether to maintain such a journal and the manner in which it is used.

STEP 8: INSURANCE.

Getting insurance could be the first step as well as the last step you take in understanding and assessing liability. There are many types of liability insurance available to you. Your sponsor or organization may well have just the type of coverage you require. What is important to remember is to question the suitability of such coverage both in terms of coverage and the amount of coverage. You also need to know who the company is that is insuring you. What is their rating by the insurance industry? Catastrophic injuries cost millions of dollars in care. Your coverage, and the insurance company's ability to pay in the event of a claim, must be commensurate with the risks inherent in the activity with which you are involved.

STEP 9: KEEPING AND MAINTAINING ACCURATE RECORDS.

In today's litigious society, it is critical that you keep and maintain good records. Begin by obtaining and maintaining the appropriate informed consent documents and waivers and releases of liability. State laws vary widely in the areas of waivers and releases and exculpatory clauses. Some states recognize the validity and enforceability of such releases and others do not. Even in jurisdictions where releases involving a minor are not deemed enforceable, they may be admitted as evidence of a participant's negligence or knowledge of exposure to risk.

Commonly, release language will state that the participant recognizes that the activity may result in serious, catastrophic injury or even death. Whether in assumption of risk states or comparative negligence states, such signed releases are effective instruments in proving that the participants understood the risks involved in the cheerleading activities.

If an accident occurs, make sure that you obtain and maintain accurate reports signed by participants, including, if possible, the injured party, supervisors and witnesses. Make sure that the report describes in detail the incident in question and identifies all witnesses. Take photographs of the injured participant and the accident scene. Once the record is obtained make sure to maintain the records for the length of your state's negligence statute of limitations. Failure to properly maintain records can make the defense of a lawsuit much more difficult.

The legal term for improperly maintaining records is "spoliation." Spoliation of evidence occurs when a document or other information, whether kept electronically or by any other method, is destroyed or altered after one has reason to believe such records or information may constitute evidence in a civil or criminal proceeding. Spoliation can occur intentionally or negligently.

Where a critical document is destroyed or lost by spoliation, the plaintiff may move the court to infer that such damaged or destroyed information may have been useful in a claim against the defendant and in favor of the non-spoliating party.

As statutes of limitation vary from state to state it is imperative to keep records of all accidents for as long as your state's negligence statute of limitation.

CONCLUSION

Most importantly, always remember that into your hands comes someone's child. Conduct your program and activities as if that child were your own. You are being entrusted with their care and education in some manner. It is an awesome responsibility, but one that you can handle with proper preparation and training.

References

1. Hadley v. Baxendale, 9 Exch. 341 (1854).
2. Palmer v. Holthaus, 20 Ohio App.2d, 78 (1969).
3. Peoples v. Columbus, Delaware & Marion Elect. Co. 7 OL Abs. 229 (1929).
4. 57A Am Jur 2d, Negligence sec. 91 (2002); J. Aire Corp. v. Gregory, 24 Cal 3d, 799 (1979).
5. See Restatement, Torts 2d, sec. 298 (1965).
6. Bellefontaine R. Co. v. Snyder, 24 Ohio State 670 (1874).
7. See 78 ALR 3d 421 (1977) for a discussion of judicial adoption of comparative negligence and its retroactive application.
8. 16 ALR 4th 700 (1982).
9. Restatement, Torts 2d, sec. 441 (1965).
10. Terry v. Burford, 131 Tenn. 451 (1915).

11. Minors should not be included as parties; they are not held to be bound by contractual agreements during their minority.
12. Cases having held waiver invalid include Rosen v. LTV Recreational Development, Inc. (Colo) 569 F2d, 1117 (1978) (ski area); Van Tuyn v. Zurich American Ins. Co. (Fla.) 447 So. 2d, 318 (1984) (riding bucking mechanical bull).

LEGAL LIABILIBITY UNDERSTANDING IN CHEERLEADING

1. Coaches, advisors, and school administrators have a legal duty and/or responsibility to ensure the safety and well-being of their cheerleaders. Coaches/administrators must be made aware that they share the responsibility for any additional personnel whom they supervise and who assist in the training of the participant or team.
2. The program plan for cheerleading should be well thought out in advance of implementation, within the scope and abilities of the coach/advisor, and be reviewed and approved by the school administrator.
3. Providing adequate supervision is a fundamental prerequisite to managing the risk in cheerleading.
4. Cheerleading coaches/advisors are expected to take every reasonable means to ensure that cheerleaders know, understand and appreciate the risks.
5. Pre-participation medical examinations of all cheerleading participants should be required and kept on active file.
6. Ensuring that participants have an adequate level of performer readiness prior to participation is an important duty of cheerleading coaches/advisors.
7. A proper environmental setting is an essential prerequisite to cheerleading safety.
8. Having an adequate plan in place for providing emergency medical procedures is another important duty of cheerleading coaches/advisors.
9. An accident/injury report on every cheerleading mishap should be properly filled out and kept on active file.
10. Obtaining adequate insurance coverage for cheerleading coaches/administrators is an important step in understanding and assessing liability.

Special Section on Maltreatment

By Karen Lew Feirman, DHSc., LAT, ATC

It is the duty of all coaches and staff to ensure and safeguard, to the best of their ability, the welfare and the prevention of physical, sexual, or emotional abuse of children and young people with whom they come into contact. All parties involved with cheerleading should be both committed and required to recognize and report any and all maltreatment of a child. Too many instances of abuse and harassment of young people are ignored because adults fail to recognize or admit that it is occurring. An effective recognition and protection policy depends on all of the adults involved, being both aware of the possibility of abuse and vigilant in guarding against it, while being knowledgeable to report any potential abuse to the appropriate entities.

As a coach/advisor supervisor of minors in your program it's important that you know and understand these three things:

- **Understand:**
  - What sexual abuse is, and the types of abuse
  - What grooming is and common behavior of offenders
- **Recognize:**
  - Signs, symptoms and effects of abuse and harassment
- **Report:**
  - How to handle and respond to a report of or suspicion of abuse

UNDERSTANDING MALTREATMENT:

How Prevalent is sexual abuse? More than 3 million reports of child abuse nationwide each year. Children are being abused at an alarming rate. 1 out of 7 children are abused during their lifetime. 1 out of 4 girls and I out of 6 boys is sexually abused before the age of 18. Only about 1% - 4 % of sexual abuse allegations prove to be false. In more than 90% of the abuse cases, the offender is a person that is known to the child or parent. In 80% of the abuse cases the abuse is by the parent. Children tend to minimize and deny abuse, not exaggerate or over report such incidents. Child sex offenders seek opportunities for access to children and teenagers through youth organizations that lack strong screening and protection practices. Young people often fail to report sexual abuse because they fear that disclosure will bring consequences even worse than being victimized again. Child abuse is generally underreported because offenders are able to convince their victims that it is their own fault. In many cases, victims of child sexual abuse do not report the abuse until they are adults.

MALTREATMENT STATISTICS:

This is the breakdown of reported Maltreatment cases in 2009 according to the US Department of Health and Human Services:

- More than 75 percent (78.3%) suffered neglect
- More than 15 percent (17.8%) suffered physical abuse
- Less than 10 percent (9.5%) suffered sexual abuse
- Less than 10 percent (7.6%) suffered from psychological maltreatment

****The statistics above are greater than 100% since a child may be abused in multiple ways in the same instance of maltreatment.*

National Center for Post-Traumatic Stress Disorder, www.ncptsd.org

http://www.childabuse.com/cm09.pdf, US Department of Health and Human Service

CHARACTERISTICS OF VICTIMS

- In 2011, 35% of victims were younger than 3 years, with children younger than 1 year having the highest rate of victimization (21.2 per 1,000 children).[1]
- The rates of victimization in 2011 were 8.7 per 1,000 children for boys and 9.6 per 1,000 children for girls.[1]
- The 2011 rates of victimization per 1,000 children were 14.3 for African Americans, 11.4 for American Indian/Alaska Natives, 8.5 for Pacific Islanders, 8.6 for Hispanics, 7.9 for non-Hispanic Whites, and 1.7 for Asians.[1]
- Approximately three quarters of victims in 2011 had no prior victimization for each year from 2007-2011.[1]

Child abuse, neglect, and maltreatment is more than broken bones and bruises. The physical and emotional effects stay with a child for a lifetime. It's important to know the varying types of abuse. In being able to recognize and report – you can help make a difference in the life of a child.

RECOGNIZING MALTREATMENT:

TYPES OF ABUSE:

EMOTIONAL OR VERBAL ABUSE

- **Definition:** Incidents in which an adult uses fear, humiliation, or verbal assaults to control the behavior of a young person in their care.
- **Examples:**
  - Rejecting the young person
  - Preventing him or her from developing normal social relationships
  - Making derogatory statements about the youth's race, religion or personal appearance

PHYSICAL ABUSE AND NEGLECT

- **Physical Abuse:** Mistreatment of a young person by use of physical contact intended to cause pain, injury, or other physical suffering or harm.
- **Neglect:** Failure to provide (for no apparent financial reason) adequate food, clothing shelter, or medical care necessary for a youth's well-being.

SEXUAL ABUSE

- **Definition:** Engaging in implicit or explicit sexual acts with a young person or forcing or encouraging a young person to engage in implicit or explicit sexual acts alone or with another person of any age of the same or opposite sex. Sexual Abuse is a general term that refers to sexual activity with children that is non-consensual, produce sexual arousal, or gratification, or involved sexual exploitation. These behaviors can include physical and non- physical contact (as in voyeurism, showing pornography, making child pornography, etc.)
- **Examples of non-touching offenses**
  - Indecent exposure
  - Showing a young person sexual or pornographic material

SEXUAL HARASSMENT

- **Definition:** Sexual advances, requests for sexual favors, or verbal or physical conduct of a sexual nature. In some cases, sexual harassment precedes sexual abuse and is a technique used by sexual predators to desensitize or groom their victims.
- **Examples of sexual harassment include:**
  - Sexual epithets
  - Sexual jokes
  - Written or spoken references to sexual conduct
  - Gossip regarding one's sex life
  - Comments about an individual's sexual activity
  - Verbal abuse of a sexual nature, that may be suggestive
  - Display of sexually suggestive objects, pictures, or drawings
  - Sexual leering or whistling
  - Any inappropriate physical contact such as brushing against or touching, obscene language or gestures, and suggestive or insulting comments

MISCONCEPTIONS AND FALLACIES

Fallacy: Sexual abuse is about the act of sex.

Fact: In fact, most sexual abuse and harassment is about power and control.

Fallacy: Only girls are at risk.

Fact: Although the majority of victims are girls, boys are also at risk. Some studies have shown that as many as one in six boys under age 16 has experienced unwanted direct sexual contact with an older person.

Fallacy: Only men are abusers.

Fact: Although this is most common, women are abusers also.

Fallacy: Girls are only at risk from men, and boys are only at risk from women.

Fact: There has been an increase in same sex sexual abuse in children over the past several years.

Fallacy: Sexual abuse is always overt. Most abusers are unknown to their victims.

Fact: Most abusers are known and trusted by their victims.

THE GROOMING PROCESS

Children who rely on the offender for care, love, affection or other things are vulnerable to the demands of the abuser and do not realize and recognize they are being groomed to be taken advantage of.

Throughout the process of engaging the child in the abuse, the offender is evaluating whether the child has been groomed sufficiently (i.e. whether they show interest, will not protest, will keep the secret).

The offender uses a range of strategies and activities to engage the child in a relationship where the abuse can happen, and to desensitize the child to abusive behavior.

- Recognize -the first step in being able to help abused, maltreated, or neglected children is learning to recognize the signs of child abuse and neglect.

Strategies used for grooming:

- **Trust -** Creating situations where the perpetrator gains the trust of the child
- **Favoritism -** Paying special attention to or giving special benefits to the child
- **Isolation -** Identifying opportunities to be alone with the child
- **Secrecy -** Cultivating a trusting and secretive relationship
- **Desensitization -** Making the child feel at ease and as if the behavior is normal and acceptable

Signs and symptoms of abuse and harassment:

- Any physical signs of abuse, such as a repeated pattern of injury or an accident for which the explanation doesn't fit the injury
- Changes of behavior, including
- Extreme mood swings
- Becomes extremely active or extremely withdrawn
- Irritability
- Angry outbursts
- Fearfulness
- Excessive crying
- Aggressiveness or becoming a "risk taker" – especially common with boys
- Fear of certain places, people, or activities; reluctance to be left alone with a particular person
- High levels of anxiety or depression

- Distorted body image, including or resulting in
- Eating disorders/change in eating patterns – especially common with girls
- Self-mutilation
- Other related behaviors Unwillingness to participate in extracurricular activities; difficulties at school
- Ridding oneself of memories or difficult experiences
- Poor peer relationships; isolation, lack of interest
- Trouble sleeping, nightmares or night terrors
- Graphic or age-inappropriate knowledge of sex or sexual behavior
- Suicide attempts or gestures
- Obsessive behaviors
- Diminished self-esteem
- Expresses general feelings of shame
- Self-medicating through drug or alcohol abuse
- Problems with authority or rules

PROTECTING OUR YOUTH

Treat all youth participants with respect. Ensure all policies are followed. Show youth participants that you are approachable and willing to listen to their problems: Ask how they are doing each day. Learn their names. Provide youth participants with contact information for individuals they can go to with questions or concerns should they ask or approach you. Identify situations that might pose a special risk.

Be aware that even the most mature teen is not yet an adult and that teens may misconstrue some conversations and actions.

MINIMIZING THE RISK OF MALTREATMENT:

- One adult should never be alone with a cheerleader.
- Do not go into a room with a participant alone and close the door.
- One on one skill instruction or First Aid treatment should be in an open area, and visible by others.
- Identify visitors that show up unexpectedly by introducing yourself to the visitor and finding out the relationship to the team or team member.
- Encourage participants to travel in groups of at least two or more.
- Ensure that a coach or staff members would not be in the same room or common restroom at the same time as a camp participant.

WHO ARE THE OFFENDERS?

- In over 80% of the cases of physical abuse, emotional abuse or neglect, the birth parents are the abusers.
- The majority of perpetrators in sexual abuse cases are nonrelated caregivers - baby-sitters, step-parents, boyfriends, girlfriends or adoptive parents.
- Most sexual abuse is by the caregiver and 90-95% is someone they know (parent, cousin, and/or sibling)
- Children often love the person who is abusing them and simply want the abusive behavior to stop.

HOW AND WHERE DO OFFENDERS ENGAGE WITH THEIR VICTIMS?

- The Grooming Process
- Youth Organizations
- Internet
- Family Events
- Church
- School
- Sporting Events

THE EFFECTS MOLESTATION AND ABUSE HAS ON A CHILD:

- Psychological Issues
- Physical Issues
- Inability to Trust
- Sexual abilities and engagement
- Post-Traumatic Stress Disorder

HOW CAN YOU IDENTIFY A POSSIBLE VICTIM?

Children that are not supervised while using a computer. Children left alone to fend for themselves. A child that is made to feel they are inferior

Children that are afraid of their parents. Children with physical or mental disabilities such as blindness, deafness, intellectual disability, or cerebral palsy are at greater risk of child abuse. Children who are temperamental, impulsive, aggressive, depressed, or hyperactive may be at higher risk of being abused. These behaviors can create parental or caretaker stress that may contribute to child abuse.

REPORTING:

What should you do if you suspect maltreatment?

Reporting abuse or neglect can aid in protecting a child and get help for a family – it may even save a child's life. When a child reports abuse to you – the child may be scared, afraid, nervous or powerless; do not react with disgust or rage – remain calm. Let the child know that you will make a report to the appropriate authorities so that they can help stop the abuse. Tell the child that you are glad they told you and you will do your best to support and protect them. Mandated reporters are by law required to report child abuse or elder abuse. In some states, mandatory reporting requirements apply to all people in the state. In other states, mandated reporting requirements generally apply to staff members of a public or private institution or caregiving facility, as well as to a variety of public safety employees and medical professionals, or a public or private school responsible for the safety and wellbeing of vulnerable persons. Each State has a different requirement for reporting so it's important to know what's available in your area.

MAKING A DIFFERENCE IN A CHILD'S LIFE:

- Be on the same eye level as the child; be tactful and have no physical barriers between you and the child.
- Assess the child's safety, needs, and the urgency of the situation without judging or making suggestions.
- Do not interrogate or interview the child; be supportive and listen.
- Listen to the child and allow the child to talk without being questioned.
- Don't comment on the child's situation as being bad or good; let the child tell his/her own story; leave out your own assumptions and value judgments.
- Be calm and in control of your responses and emotions; do not react in a manner that may scare the child.
- Find out what the child wants you to do to help or support him/her.

REFERENCES:

- International Society for Prevention of Child Abuse and Neglect, www.ispcan.org ; www.ispcan.org/resources.htm
- U.S. Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. (2012). Child Maltreatment 2011. Available from http://www.acf.hhs.gov/programs/cb/research-data-technology/statistics-research/child-maltreatment.
- American Medical Association, www.ama-assn.org
- "Strategies for the Treatment and Prevention of Sexual Assault" at www.ama-assn.org/ama1/pub/upload/mm/386/sexualassault.pdf
- National Center for Post-Traumatic Stress Disorder, www.ncptsd.org
- WINGS Foundation, www.wingsfound.org
- "Facts about Childhood Sexual Abuse" at www.wingsfound.org/statsChildhood.html
- http://carlavandam.com/work/stopping-sex-offenders-in-their-tracks/
- Texas Department of Family Protective Service http://www.dfps.state.tx.us/Contact_us/report_abuse.asp
- www.unce.unr.edu
- http://www.pandys.org/articles/sexualabusegrooming.pdf

CHAPTER 3

MEDICAL

Medical Responsibilities in Cheerleading

By Jeffrey R. Dugas, MD

The world of cheerleading and all of its encompassing activities has changed dramatically in the past 30 years. With estimates of over 400,000 high school participants, and over 1.5 million all-star participants, the global interest in cheerleading is certainly on the rise.[1]

Cheerleading is a physically demanding activity, which can be socially and competitively rewarding. As both a primary sporting activity, or as a means of demonstrating and enhancing school spirit, cheerleading is an activity that requires physical skill and agility, as well as leadership ability. Among high school sports, cheerleading ranks among the lowest in overall injury rates.[2] However, as with all activities, there are some inherent risks in cheerleading with which the participants and their guardians must be familiar. It is the responsibility of each and every athlete, coach, administrator, parent, and guardian to be aware of these risks, and the measures that can be taken to avoid or minimize them, whenever possible. No one can predict or guarantee participation in any activity, including cheerleading, without injury or illness; there will always be some inherent potential for accidents and injuries.

This chapter will focus on the responsibilities of the medical professionals who interact with cheerleaders and cheer events/programs. In order to minimize risk, cheer organizations at all levels must place a premium on prevention, identification, and management of injuries. It should be the goal of every cheer organization to have a well-written policy on injuries as part of its standard documentation. While injury management will generally fall to medical professionals ranging from physicians and therapists to athletic trainers and coaches, **each parent/guardian must be made aware that ultimately it is their responsibility to ensure the proper treatment of their children.** The cheer organization should do everything in its authority to abide by the wishes of the parent/guardian, and should assist them in obtaining access to the best available treatment whenever possible. A written emergency action plan (EAP) should be in place for every cheer organization, including high-school cheer teams. These plans should clearly outline the algorithm for engaging emergency medical services when appropriate. The cheer athletes **AND** their parents/guardians should be aware of the EAP before beginning any participation in any cheer activity.

Much attention has been paid to injuries in cheerleading in the last several years, and this chapter will review the related published literature. Although there have been many mainstream media stories on cheerleading, and some on injuries to cheer athletes, there remains a tendency to consider cheerleading a “dangerous” activity.[17] The published and available data do **NOT** support these statements.[18] However, it remains the responsibility of the medical professionals, coaches, and administrators to do everything possible to minimize injury risk, and to deal with injuries in the most appropriate manner.

THE MEDICAL TEAM

When it comes to injury prevention, identification, and management, the number of people involved in the decisions who may influence the outcome of an injury event may be considerable. With the advent of the Heath Information Portability and Accountability Act enacted in September 1996, the handling of Protected Health Information (PHI) became the responsibility of all who have access to such information. If an athlete seeks the attention of a medical professional (physician, therapist, chiropractor, etc.), the information related to that patient is considered PHI, and can only be disseminated along the lines of care of that athlete.[3] In other words, all information related to a specific patient should be given out on a "need to know" basis ONLY. The athlete, parent/guardian, coach, athletic trainer, and medical professional are all on the "care team" and can generally be considered to be safe harbors of medical information. However, if the athlete or parent/guardian specifically requests that a piece of PHI not be given to a specific person or persons, that information must be kept confidential. Unless the health and safety of another athlete is in danger, such information should not be disseminated. PHI can be both verbal and/or written. Any written information given to a coach, athletic trainer, or gym owner/administrator should be kept in a safe and confidential location, so as not to be easily accessed by anyone not approved for such information.

When injuries do occur, the medical team should share necessary information regarding an athlete in a concise and coordinated manner. It is always in the best interest of the injured athlete to have ALL people who will be involved in their care, treatment, and recovery aware of the plan of care. In this way, the recovery plan may be carried out in a consistent and efficient manner without confusion. If all members of the team are not aware of the care plan, it is possible and even likely that the athlete's progress through recovery will not go smoothly. When possible, one person should oversee the care of the athlete, with support from other. Typically, the sports medicine physician will define and diagnose the injury and prescribe a plan of action. Once in place, that plan should be carried out by the team members, typically the physician, parent/guardian, physical therapist, athletic trainer, and coach. When possible, it is in the best interest of any injured athlete to seek the attention of a sports medicine specialist. These professionals have training specific to injuries sustained in athletes and athletic activities, and will have the best knowledge and most experience with the types of injuries sustained in cheerleading.

The care team of athlete, parent/guardian, coach, athletic trainer, therapist, physician, and administrator must acquaint themselves with the specific demands and characteristics of cheerleading, and the injury risks inherent to participation. The plan of action in the event of an emergency or non-emergent injury should be clearly understood by all members of this team. Not all injuries require a visit to the sports medicine specialist. Each non-athlete member of the team should have a basic knowledge of first-aid, and where any available supplies are stored. Many simple injuries may be accurately and appropriately diagnosed by properly educated coaches and parents. Physical therapists (PT) and certified athletic trainers (AT) are trained in the art and skill of physical diagnosis and early management of many injuries. Any time there is an injury that is beyond the scope of the knowledge of the coach, parent, or PT/AT, the opinion of a sports medicine specialist should be sought. Specific injuries will be discussed later in this chapter.

MEDICAL PROVISIONS

In the interest of protecting athletes and minimizing injuries, several evaluations are necessary along the course of participation in any athletic activity. This process begins with a pre- participation physical examination with documented clearance to participate in the specific activity.[4] Baseline clinical and insurance information should be obtained, along with contact information for anyone who should be alerted in the event of an injury or illness. As with PHI, all of this information should be kept confidential, and in a secure and permanent location for ease of future reference. The system of forms created to collect and keep all of this information may be unique to each cheer group or organization, but the nature of the information should be consistent throughout all groups.[4,5]

Pre-Participation Evaluation (PPE): The goal of the PPE is to determine the ability of the athlete to safely participate in the desired activity. The PPE typically contains a questionnaire in which the athlete and parent/guardian provide a directed medical history for the athlete and a family medical history. A proper PPE should a) detect conditions which may limit participation or predispose the athlete to injury, b) evaluate the fitness level of the athlete, c) provide appropriate treatment, advice, and counseling for existing conditions, and d) either clear the athlete for full participation or limit participation from specific or all cheerleading activities.[5]

The PPE should be carried out by a trained sports medicine physician. If a sports medicine specialist is not available, other physicians (e.g. pediatricians, family practitioners, internists) with experience providing such services should be sought. No PPE can guarantee the prevention of any injury. However, many risk factors can be discovered through the use of the PPE, and it should be mandatory before starting any type of supervised physical activity in cheerleading. There are two examples of PPE forms found in the *Online Appendix*. The "short form" encompasses a medical and family history on the front, and a physical examination on the back. The longer form is a more detailed form. Both forms allow the person filling the form out to document the health and ability of the athlete to participate safely. It is recommended that the first (intake) PPE prior to participation with any

team, group, facility, school, or coach, be done using the more detailed form. Thereafter, once the athlete is familiar to the existing personnel, the short form may suffice. All PPE's are best performed at least 6-8 weeks prior to the onset of any cheerleading activity. This added time allows for the completion of any tests or treatments which may be required to get the athlete ready for participation.

If the PPE causes a physician to disqualify an athlete from participation, that decision should not be altered by another member of the care team until the issue causing disqualification has been resolved.[6] In the event that there is dissention or disagreement among the care team, the athlete and their parent/guardian may seek a second opinion regarding participation. This speaks to the benefit and importance of having a sports medicine specialist on the care team. Occasionally, a parent/guardian may offer a signed release, waiving future responsibility or liability related to a specific condition that caused disqualification of their child. This IS legal, but is dangerous and NOT recommended, and should be rigorously avoided. Legal precedents do exist that have allowed a parent/guardian to override the medical determination of disqualification. Faced with such a situation, coaches and administrators are advised to document their own recommendations against the participation of the athlete for medical reasons, provide written copies of such recommendations, and obtain a signed waiver and/or full release from any liability from the parent/guardian.[6]

When possible, it is best to have a physician or group of physicians perform the PPE's on all participants from the same team, group, or facility. Ancillary personnel like coaches and Certified Athletic Trainers can make this process very efficient and thorough.[4,5,6] In these settings, the athlete comes to the physician with a signed PPE form, acknowledging that the parent/guardian is giving permission for the athlete to participate. The ancillary staff may proceed in helping the athlete complete a flexibility and motor skills assessment called a Functional Movement Screening (FMS) test.[7,8] Simple vision and hearing tests may be assessed at this time. With the medical and family history completed by the parent/guardian or the athlete themselves, the next step is to see the physician. The physician should review the documented history and clarify any suspicious findings. All current medications, allergies, and previous injuries should also be documented. The physician should then perform a review of systems and physical examination covering all organ systems as outlined on the forms in the *Online Appendix*. Specifically, attention should be paid to doing a thorough musculoskeletal examination to detect any existing injuries, or any obvious risk factors for injury. Again, this speaks to the importance of having a relationship with a sports medicine specialist when possible.

Once the PPE is completed, the athlete will either be a) cleared for participation with no restrictions, b) cleared for participation with specific restrictions or after completing treatment for a specific condition, or c) not cleared for participation. In the event of clearance for unrestricted participation, the athlete may begin participation immediately. In the event of clearance with restrictions, the specifics of what may and/or may not be allowed for the athlete should be communicated clearly along the lines of the "care team". In the event of non-clearance, the reason(s) for not clearing the athlete should be clearly explained to the athlete, their parent/guardian, and other "care team" members as needed. If a future path towards clearance to participate is possible, these conditions should be outlined. If complete disqualification is the recommendation, this too should be explained and documented. An example of the first non- clearance situation would be an athlete who comes to the PPE with an injury such as an ACL tear. In a tumbling, stunting activity like competitive cheerleading, this athlete would very likely not be cleared to participate. However, following completion of proper treatment and subsequent recovery that athlete could return to participation after completing a PPE. An example of the second type of non-clearance might be an athlete who has suffered repeated concussions. In this case, the physician may recommend that the athlete be disqualified from continued participation in any contact sport, including stunting/tumbling.

In some cases, the physician may order diagnostic or confirmatory testing prior to rendering a final decision about clearance. Several medical and orthopedic conditions may require more sophisticated testing in order to determine the safety of continued participation. In some cases, blood or urine testing may be required to complete the evaluation.

Other Required Forms: In addition to the PPE, each athlete or parent/guardian should complete and sign: 1) a form granting permission for the athlete to participate; 2) a form which allows the athlete to receive emergency medical care if needed; and 3) emergency contact information which should be kept in an easily accessible location. In the event that a minor suffers an injury, every effort should be made to contact the parent or legal guardian of that athlete. However, in rare cases, emergency medical services may need to be accessed to handle an injury; a previously signed consent for emergency treatment can expedite this process, and prevent unnecessary delays in evaluation and treatment.

Universal Precautions: Many communicable diseases and conditions can be transmitted by exposure to bodily fluids, including blood, urine, sweat, saliva, and mucous. Viral (e.g. HIV, Hepatitis, Influenza, Ebola, etc.) and bacterial (e.g. Staph, Strep, etc.) infections can be rapidly transmitted among athletes who are in close contact with each other if adequate precautions are not taken to prevent such transmission. If an athlete sustains a laceration, nosebleed, abrasion, or other injury which allows for bleeding or oozing of blood or serum, they should be immediately removed from participation until the

wound can be treated and covered. Any body fluids which come in contact with mats or other equipment should be cleaned with a suitable disinfectant prior to any further activity in that area. The coach, athletic trainer, administrator, or other personnel with first-aid training should take standard precautions in handling any wound or bodily fluid.[9,10]

NOSEBLEED

In the event of a nosebleed, gentle pinching pressure should be applied at the junction of the cartilaginous and bony portions of the nose.[11] Every effort should be made to avoid swallowing blood from the nosebleed. Ice may be applied to the bridge of the nose as well. Soft cotton or tissue may be used to plug the nasal passage, but should be left protruding from the nostril in order to promote ease of removal once the bleeding stops.

CUTS AND ABRASIONS

Superficial skin wounds and abrasions should be cleaned with a sterile gauze or wipe. Soap and water, peroxide, betadine, or any host of commercially available wound disinfecting solutions may be used. The wound should be covered with a non-adherent dressing once it is cleaned.[12] If a wound is deep (may require suture closure), a temporary non-adherent dressing can be applied after gentle cleaning. This should be adequate to completely cover the laceration, and should be of substantial thickness to prevent bleed-through. In cases of more vigorous bleeding from a wound, immediate pressure should be applied with a clean towel or bandage, and urgent evaluation by a physician should be sought.

INJURY EVALUATIONS

Injuries can be divided into two basic categories, relative to participation in sporting activities: 1) injuries that cause loss of time from participation; and 2) injuries that do not cause loss of time from participation. Both types of injuries should be documented thoroughly by the coach, athletic trainer and facility. A simple injury documentation form should be completed for any injury which is sustained during active participation in cheerleading. Even the most minor sprain or strain should be documented. A sample form can be found in the *Online Appendix*.

Injuries which do not keep the athlete from participating should not be ignored or lessened. A minor ankle sprain may not keep the athlete from some cheer activities, but may worsen if not properly managed. This again speaks to the importance of a relationship with a sports medicine specialist. The sports medicine specialist will know how to manage any injury in an efficient and safe way, preventing further injury. These specialists will also be able to prevent unnecessary time away from the desired activity by encouraging proper rehabilitative programs that will coincide with the injury. When an athlete is forced to miss participation in cheerleading, every effort should be made by all members of the care team to minimize this time away from participation. Measured in days, weeks, and months away from participation, these injuries vary widely in severity and treatment options. We will discuss several common injuries later in this chapter.

Once an athlete completes the prescribed treatment program for their specific injury, return to participation must be decision of either the treating physician or the athletic trainer. These two people are the ONLY members of the care team who have the necessary training to make these decisions. Written documentation of the decision to clear an athlete for return to participation after an injury should be expected and kept on-file. In the case of documented concussion, many states require that a physician clear any concussed athlete for return to participation.[13]

CATASTROPHIC INJURIES

Although rare, catastrophic injuries have occurred in cheerleading. Although rules changes aimed at preventing dangerous stunts and activities have lessened the occurrence of these horrible injuries, they can never be prevented completely. Over the last 5 years, a steady decline in catastrophic injuries in cheerleading has occurred.[14,15,16,17,18.] However, with the ever-present potential for such injuries, all athletes, coaches, athletic trainers, administrators, gym-owners, and parents/guardians should be aware of what to do in such situations. The outcome of any serious injury can often be determined by what happens in the minutes immediately following the injury. It is critical to have immediate access to someone with CPR and first-aid training at all times when participating in cheerleading activities, preferably the coach or other designated staff member. These courses are readily available through the American Red Cross, hospitals, and schools.

Telephone access should be available whenever cheerleading activities are being performed, and a knowledge of how to activate emergency services should be obviously posted (Dial 911). The name, address, phone number, and directions for the nearest hospital or emergency provider should also be readily available. **Once the emergent needs of the injured athlete have been attended (CPR, neck stabilization, contact EMS, etc), every effort should be made to contact the parent/guardian or other emergency contact of the athlete.**

FIRST AID KIT

A well-stocked first-aid kit is a necessity for any cheerleading team, group, or facility. It should contain all materials needed to support an injured athlete with a catastrophic

injury until trained medical professionals can arrive, and also to provide initial treatment for more minor injuries. The kit should be inspected regularly (every 3 months) and restocked as needed. Having a smaller first aid kit with the basic and necessary supplies should accompany the team in the event of an unforeseen circumstance. Ideally, the kit in the gym setting, should contain the following:

1. **Shock**
   a. Blanket to maintain body temperature
2. **Central Nervous System (CNS) Injuries including concussion and spine injuries**
   a. Long spine board (If available)
   b. Cervical collar
   c. 5-lb sandbags (2)
   d. Tongue blades
3. **Eye Injuries**
   a. Penlight
   b. Sterile saline or other irrigation solution
   c. Sterile cotton swabs
   d. Sterile eye patch
   e. Sterile adhesive strips
   f. Magnifying glass
   g. Contact lens case
4. **Orthopedic Injuries**
   a. Sling
   b. Crutches
   c. Ice packs or other cold packs
   d. Splint materials for both upper and lower extremities
   e. Aluminum finger splints
   f. Ace bandages
   g. Adhesive tape
   h. Elastic tape
   i. Bandage scissors
   j. Foam rubber or felt padding
   k. Gauze pads and non-adherent dressing sponges
5. **Wound and Miscellaneous**
   a. Liquid soap
   b. Betadine solution
   c. Sterile roll bandage gauze
   d. Band-Aids: assorted sizes
   e. Latex disposable gloves
   f. Aspirin and Acetaminophen
   g. Antacids
   h. Supplies for anaphylactic shock

Cardio-pulmonary Arrest: Cardio-pulmonary arrest can be defined as an interruption of normal breathing and/or circulation, and is obviously the most serious and life-threatening of all medical emergencies.[19] Without oxygen, the brain will rapidly sustain irreversible injury, often within 4-6 minutes. Prompt recognition of this condition and immediate initiation of CPR is of paramount importance to maintain perfusion of the brain and other critical organs. Although a brief and incomplete description of CPR is given here, completion of a recognized CPR course is mandatory for at least one member of every cheerleading staff. These skills can be easily understood, practiced, and mastered in a short period of time, with classes offered through multiple venues in every community.

Cardiac and/or respiratory arrest may occur following serious head or neck injury, chest trauma, or shock. The cardinal signs of these conditions are the absence of a pulse and or active breathing. One of the hallmarks of CPR training is to remember **ABC (Airway, Breathing, and Circulation.)** The first priority is to establish the presence or absence of active breathing. In order for this to be assessed, the pathway for air, namely the nose or mouth, must be visibly clear. Airway obstruction due to foreign body (i.e. mouthpiece) or tongue must be cleared to clear the airway if needed. The presence of breathing can often be confirmed by watching the athlete's chest rise and fall in the normal rhythm. If in doubt, one can assess for the presence of breathing by listening closely to the nose and mouth, and by feeling for expired air from the nose or mouth. If airway obstruction is suspected, the first thing to do is to place the fingers behind the angle of the jaw on both sides and pull forward. This maneuver serves to pull the tongue away from the back of the throat, clearing the airway. If spontaneous breathing is not present, artificial respiration via mouth-to mouth or via a special mouthpiece can be initiated as part of standard CPR. Pulses can easily be detected at the wrist, or at the carotid artery of the neck. Careful attention should be paid never to manipulate the neck of an unconscious or neurologically impaired patient until the cervical spine has been stabilized and cleared. The absence of a palpable pulse warrants the initiation of standard CPR.

In cases of cardio-pulmonary arrest one of the first actions, after assessing the immediate needs of the injured athlete, is to activate the emergency medical service by dialing 911 (or having someone else dial 911). Although CPR training is imperative and can be life-saving, the abilities and resources available to trained emergency medical personnel are far greater than any one unequipped person. In other words, always call for help in these situations.

If an Automated External Defibrillator (AED) is available, staff should be familiar with its location and use.

Head and Neck Injuries: What has previously been termed concussion/head injury has now been re- termed as Traumatic Brain Injury (TBI). These injuries represent discreet trauma to any one of the various areas of brain tissue, and may have various presentation, treatment options, treatment durations, and outcomes.[20] Depending on the severity of the injury, some TBI require no treatment at all, and simply resolve in a very short period of time, even within one day. Others can have long-lasting symptoms and side effects, with some even thought to lead to disastrous conditions like Chronic Traumatic Encephalopathy (CTE). This disease process is highlighted by the gradual loss of motor function in all voluntary muscles in the body, similar in scope to what is seen in Lou Gehrig's Disease or Amyotrophic Lateral Sclerosis (ALS). These conditions are life threatening, and have been linked to TBI. Much attention is being paid to these injuries in all types of sports, and research into the occurrence, outcomes, and prevention of these injuries is growing rapidly.

Severe Injuries: In cheerleading, blunt trauma to the head from person-to-person, person-to-ground, or person-to-equipment contact can lead to a spectrum of injuries ranging from mild headache to intracranial bleed, and even death.[18,22,23] Any injury that causes a disruption of the normal cognitive function of an athlete must be treated as a concussion, and participation in any **athletic activity MUST CEASE IMMEDIATELY.** There is no room for pushing an athlete with any signs or symptoms of a TBI to continue to participate in any way.

Obvious severe injuries like unconsciousness or loss of memory, balance, vision, hearing, or speech require further assessment by a physician. Anyone suspected or diagnosed with any level of TBI must be closely monitored to insure that the condition is not worsening over time. Some intracranial hemorrhaging will be very slow, and symptoms may not be severe at first. However, if symptoms are progressing rather than improving, urgent evaluation in an emergency setting is recommended. If an athlete sustains an injury that renders them unconscious, it is imperative that the athlete not be moved (to ensure that the cervical spine is not manipulated) unless the airway cannot be adequately accessed and assessed (remember the **ABC** of CPR).

Every athlete who is diagnosed with any level of concussion or TBI should be cleared by a qualified physician before returning to any type of athletic activity.[22,23] Not all physicians are experienced in the management of TBI, once again demonstrating the importance of having a relationship with a sports medicine specialist whenever possible.

Cervical Spine Injuries rarely occur as the result of a direct blow to the neck area, but are more frequently due to the head impacting another athlete or surface causing the neck to either hyper flex or hyperextend.[24] Depending on the impact and the position of the head, it is possible for the injury to include cervical spine fracture, dislocation, and spinal cord and/or nerve root trauma, even paralysis.

In any injured athlete, once the primary concerns of airway, breathing, and circulation have been cleared, the next most important system is the central nervous system and cervical spine. In a conscious patient with no neurological deficits, the athlete may be allowed to sit, stand, and walk with the neck held stable by a cervical collar. The presence of any neurological deficits (motor or sensory) mandates complete immobilization of the patient and transportation on a long spine board to an emergency facility for further evaluation.

Heat/Hydration Problems:[25] The human body is usually very efficient at maintaining its own core temperature by regulating heat gains and losses. If the temperature of the air around the body is higher than the core body temperature, the body will maintain its core temperature by losing heat through the vaporization of sweat on the skin. However, if the humidity of the environment is high, this regulatory system becomes very inefficient, and the core body temperature may begin to rise.

Excessive sweating can lead to dehydration and loss of electrolytes, resulting in one of several heat-related conditions ranging from simple cramps, to heat illness, to heat stroke. These conditions can all be prevented by utilizing simple strategies to avoid dehydration.[25,26]

1) In hot, humid conditions, gradual acclimatization to activity is recommended.
2) Frequent breaks for water and rest are recommended, at least one per every 30 minutes of rigorous activity.
3) Clothing should be light and porous, and dry clothing should be available to athletes as needed.
4) Pre-hydration and re-hydration should be common strategies in fighting heat-related illnesses.

Water should be readily available at all times in these conditions, and low-volume, high-electrolyte liquids may also be a wise choice in these situations.

Early signs of these heat-related illnesses include profuse sweating, cramps, weakness, and fatigue. These may progress to headache, nausea, vomiting, and subsequently to confusion, irritability, and loss of consciousness. These latter conditions are emergencies, and should be treated accordingly.

The hallmark of the early management of heat illness is the return of the core body temperature to normal. Along with body cooling, hydration and electrolyte replacement should administered either orally, or via intravenous infusion. The individual should be placed in a cool environment, which may require cold water bath. In cases of actual shock and loss of consciousness, emergent transportation to a hospital or emergency management facility is of paramount importance.

ORTHOPEDIC INJURIES[15,17,21,22,27,28]

The overwhelming majority of injuries sustained in the course of any cheerleading activity are orthopedic in nature. These injuries are those that occur within the musculoskeletal system, most commonly the bones, joints, tendons, ligaments, and muscles. Some musculoskeletal injuries require urgent or emergent care, while most can be managed on a non-emergent basis. Regardless, these injuries should be taken seriously, as failure to properly treat many musculoskeletal injuries can frequently lead to worsening of the condition, and even long-term and permanent damage and/or loss of function. Even the simplest of ankle sprains, if not managed properly, can lead to long-lasting ankle instability and ultimately very poor ankle function.

This is a very brief review of only a few of the commonly encountered injuries seen in cheerleading. For more comprehensive information, there are many available textbooks and manuscripts on orthopedic sports medicine, including the most up to date edition of DeLee and Drez's *Orthopedic Sports Medicine: Principles and Practice*.[28]

Compound Injuries: There are only a handful of orthopedic emergencies which need to be recognized in the setting of a cheerleading activity. Any injury in which a bone or joint is exposed to the environment (open or compound injury) is an emergency. The wound should be covered with a sterile bandage and the limb should be immobilized, prior to transportation to the nearest hospital, either by car or by ambulance. These open injuries are treated in very specific ways based upon the size, depth, and cleanliness of the wound, as well as the blood supply to the area, the pattern of the fracture, and any surrounding soft tissue damage (nerve, vessel, etc).

In most cases, an open fracture or dislocation will require surgical irrigation and debridement as well as operative stabilization. Healing of these injuries may be challenging due to the high potential for infection secondary to exposure of the injury site to the outside world. Another type of orthopedic emergency is when a joint is dislocated. The most commonly dislocated large joint articulations in the body are the shoulder and the patella (kneecap).

In cheerleading, elbow dislocation is more common than in other activities due to the forces that the elbow experiences when tumbling. All joint dislocations should be treated as emergencies, and should be addressed by experienced medical personnel. While nearly all of these dislocations can be reduced (put back into normal position) without surgery, sedation and/or anesthesia may be required.

Most acute injuries related to cheerleading will be of the non-emergent variety. As noted above, these injuries should not be taken lightly. In children and adolescents, growth plates are frequently the "weak link", and may suffer serious injury before any ligament or joint damage occurs. Non-emergent injuries can be handled in much the same way for virtually any condition.

The principles of Rest, Ice, Compression, and Elevation, or "RICE", can be applied early to these types of injuries. The primary goals of diminishing swelling, inflammation, and pain, while preserving range of motion, stability, and strength are the reasons for these principles. Immobilization, once one of the primary treatment modalities utilized in the early treatment of many orthopedic injuries, has largely been discontinued, and is not recommended for many injuries. This once again speaks to the importance of having a relationship with a sports medicine specialist. These specialists know when to immobilize and when to mobilize specific injuries to allow for the most safe and rapid return to activity.

Ankle Sprains: Ankle sprains are among the most common injuries seen in the cheerleading population. Most ankle sprains occur as the result of an inversion-type injury, or "rolling" of the ankle with the foot tilting inward. With these inversion injuries, one or more of the three lateral (outside) ankle ligaments may be injured. The severity of the injury depends upon the extent of the damage to the ligament(s), and what (if any) associated damage has occurred.

The more severe of these injuries can also have associated (joint) injury, with the creation of loose fragments of bone and cartilage, or dislocation of one or more tendons around the ankle. These more severe injuries may require surgical intervention for the instability as well as the associated injuries.

When an ankle sprain is suspected, immediate RICE should be enacted. If the symptoms do not resolve within a matter of hours or days, or in cases of suspected higher severity injury, medical attention should be sought. X-rays will usually be the first place to start on the diagnostic testing list, and more specialized tests (i.e. MRI) may be ordered for further delineation of the injury. Once the diagnosis has been made, a plan of care can be instituted, which will frequently entail short term (if any) immobilization, some form of protective brace or splint, weight-bearing restrictions (if warranted), physical therapy to regain motion and strength, and subsequent return to activity. Return to activity following an ankle sprain may take anywhere from several days to several months, depending on the severity of the injury.

Ankle and Foot Fractures: Similar to ankle sprains, these injuries are usually due to an injury in which the foot rolls (either in or out) causing significant stress on the bones of the ankle and foot. The force of these injuries is typically higher than that required to sustain a sprain. In these cases, the athlete will frequently feel a "pop" in the foot or ankle, followed by the onset of pain, swelling, and loss of weight-bearing ability. These injuries should be

evaluated by x-ray and experienced sports medicine personnel. Some of these injuries can be treated non-surgically, but any displaced fracture of the foot or ankle will likely require surgical correction. Seemingly worse than ligament sprains, these injuries can generally be successfully treated with return to activity within several weeks to months, depending on the specific injury.

Wrist Sprains and Fractures: With stunting and tumbling, hand and wrist injuries are not uncommon in cheerleading activities. These injuries generally occur as the result of an acute or repetitive forceful contact of the hand with either the ground or another athlete. Specifically, persistent pain on the back of the wrist can be caused by repetitive forceful hyperextension of the wrist with tumbling. These injuries should be treated with rest from tumbling for several weeks, along with active physical therapy and short-term immobilization with continued non-contact cheerleading activity. Failure of the symptoms to resolve within 4-6 weeks requires evaluation by an experienced hand or wrist expert.

Some fractures around the hand and wrist (namely scaphoid fractures) are common with hand-to-ground contact. Any wrist pain or thumb-sided hand/wrist pain which does not resolve within 2 weeks of injury should be evaluated with specific x-rays looking for a scaphoid fracture. Similarly, ulnar-sided (pinky sided) wrist or hand pain should be evaluated if not improved after two weeks of rest from activity and RICE.

The triangular fibrocartilage complex (TFC) is a meniscus-like cartilaginous shock-absorber on the pinky side of the wrist which is commonly injured in hand-to-ground contact and hyperextension, as seen in many cheerleading activities. These injuries frequently require surgical intervention, as they have very poor healing potential on their own.

Shoulder Injuries: Most shoulder injuries which occur in cheerleading are secondary to overuse, and are usually found in the bases and backspot positions. These athletes have to hoist above their heads and decelerate the upper level cheerleaders as they stunt and build in their routines. These activities require significant upper-body strength, and the high repetitions that these athletes must endure place them at risk of fatigue and eventual injury. Tendon tears and ligament ruptures around the shoulder are uncommon, but not unheard of.

Most of the shoulder injuries seen in cheerleading are muscle/tendon strains, joint capsular strains, contusions, and tendonitis. These injuries should be treated with immediate rest from overhead activity, RICE, and gradual strengthening of the affected muscle/tendon groups. These injuries typically take weeks to resolve completely, and the athlete should not be expected to return to overhead lifting or catching until their strength has completely returned to normal. This can be assessed by either the coach or trainer. Once back to normal activity, it is important that the athlete continue to perform the exercises that maintain the strength of the specific muscle/tendon unit(s) that were injured.

Acromio-clavicular (AC) separations and clavicle (collarbone) fractures occur as the result of forcefully landing on the side of the shoulder, usually with the arm at the side. The AC joint is violently compressed with this injury, leading to capsular or ligament injury, and possible clavicle fracture. In the case of AC joint sprain or "separation", the athlete will want to hold their arm at their side for comfort, which may be aided by a sling. The elbow should be supported for comfort. X-rays should be obtained to ensure that no fracture or dislocation has occurred. Less severe AC joint sprains may be treated non-surgically and will typically resolve within several weeks with proper management. More severe AC joint injuries may require surgical stabilization, obviously mandating a prolonged absence from cheerleading activity.

Clavicle fractures, once treated mostly non-operatively, have now become one of the most commonly fixed fractures in the body of athletes. With improvement in fixation technology (metal plates specific to the clavicle), many athletes will return to activity faster with surgical fixation than without surgical fixation. This is one of the few instances in the body where surgical treatment shortens the return-to-play time in many cases.

Shoulder dislocations, mentioned above to be the most common dislocation in the body, create an obligate injury within the shoulder. The capsule and labrum of the shoulder are generally torn from the socket of the shoulder (glenoid) when the shoulder dislocates. If a person sustains a shoulder dislocation before the age of 20, that person has an 80% chance that they will sustain another shoulder dislocation in the same shoulder unless the disrupted tissue is surgically repaired. Surgical treatment of shoulder instability has largely become a minimally invasive (arthroscopic) process, with success rates well over 90%. Return to activity after these types of procedures ranges from 3-6 months depending on the cheerleading activity, but should be expected in the vast majority of these cases.

Knee Injuries: "Jumper's knee", or Osgood-Schlatter's Disease, is an aggravation of the attachment of the patellar tendon, commonly seen in adolescent athletes. The typical "bump" over the front of the shin just below the knee is usually accompanied by pain whenever this area is touched, or the tendon is under stress (jumping, running). As with all of these types of conditions, rest from the offending activity is recommended until symptoms resolve, and supervised physical therapy may accelerate the process of return to activity. Ligament injuries around the knee occur in cheerleading, more frequently in tumbling and stunting activities.

The Anterior Cruciate Ligament (ACL) is the most important ligament in the knee, and is injured in females

as much as 3- 4 times as often as in males. Injuries of the ACL are almost always complete tears, and require surgical treatment to restore normal knee function. The absence of a normal ACL will lead to early arthritis and pain, which is why these injuries are nearly always treated surgically. Tears of the ACL represent a spectrum of injury from simple ACL-only injuries, to multi-ligament knee injuries and damage to other important articular structures, like cartilage and meniscus. These injuries require diagnosis by a trained specialist or athletic trainer, and should be considered urgent. Further damage of the articular structures will likely occur if the athlete continues to attempt normal activity with a torn ACL.

Low-Back Injuries: Aside from simple muscle strains, the most significant lower back injury seen in cheerleading is a fracture of one of the posterior elements of the lumbar spinal vertebrae. These stress fractures or acute fractures usually occur as the result of a hyperextension injury of the lower back, or as the result of a violent stress on the front side of the body, where the lower back has to catch or decelerate a falling object/person. Athletes with these injuries will typically have lower back pain, slightly towards one side or the other, worse with back extension (tilting back). X-rays, bone scans, and CT-scans may be needed to formally make the diagnosis of a lumbar stress fracture. It is important to recognize these injuries early in their course. If recognized and treated within 6 weeks of the onset of symptoms, the healing rate of these injuries is significantly higher than if the injury is more chronic at the onset of treatment. Failure of these injuries to heal is not uncommon, likely due to delay in reporting of symptoms and firm diagnosis. The pain with these injuries is not typically debilitating, making early diagnosis difficult. Many athletes will continue to attempt to participate with these injuries because the severity of the symptoms is not enough to cause them to sit out. However, if the coach or parent suspects such a problem, immediate evaluation by a trained physician should be obtained due to the time-element of the healing process. Generally, treatment for these injuries involves rest from running, jumping, and tumbling, along with physical therapy, and possible brace use. When successful, return to cheerleading activities can be expected in a matter of several months.

SUMMARY

Cheerleading has changed dramatically in the last ten years, and participation in cheerleading continues to grow at a rapid pace. While injuries in cheerleading remain among the lowest of all high-school sports, no activity is without injury risk.

It is the responsibility of every athlete, coach, athletic trainer, administrator, and gym-owner to be keenly aware of the risk of injury while participating in any cheerleading activity. Specifically, a basic knowledge of what to do in the case of both emergent and non-emergent injuries should be had by all parties, and at all times, at least one member of the "team" should be trained in CPR and first-aid whenever cheerleading activities are ongoing. A detailed emergency action plan should be documented and familiar to the team members and participants.

Pre-participation evaluations (PPE's) should be done on all cheerleaders before any activity is begun, and important information, like emergency contacts and pertinent medical history, should be kept confidential but immediately accessible in the case of an injury or emergency. Proper conditioning and pre-hydration should be undertaken by all participants to ensure safe and pleasant participation in cheerleading activities. In the event of an injury, proper precautions should be taken to protect the well-being of the injured athlete, and those around them. Although rare, injuries will occur with any activity, including cheerleading. Many injuries can be successfully treated quickly and without surgical intervention. Physical therapy will generally accelerate the process of return-to-play safely. Although some injuries will require surgical treatment, the vast majority of these injuries can be successfully treated and return to full cheerleading activities is expected. For all of these reasons, the assistance and expertise of a trained sports medicine professional is valuable to any cheerleading team or organization. To find a sports medicine specialist in your area, please visit www.sportsmed.org, the home of the American Orthopaedic Society for Sports Medicine.

REFERENCES

1. National Federation of High Schools (NFHS) survey results. Information viewed on http://www.varsity.com/event/1232/400000-cheerleaders.aspx.
2. Schroeder AN, Comstock RD, Collins CL, Everhart J, Flanigan D, Best TM: Epidemiology of Overuse Injuries among High-School Athletes in the United States. J Pediatr. 2014 Oct 25 (epub).
3. Coons, LR: Security breaches: tips for assessing and limiting your risks. J Med Pract Manage. 2011 May-Jun;26(6):385-8.
4. Headlee D, Nord W, Huntington MK: Preparticipation physical evaluations in youth sports: a systematic review of current recommendations. S D Med. 2014 Jul;67(7):273-7.
5. Wingfield K1, Matheson GO, Meeuwisse WH: Preparticipation evaluation: an evidence- based review. Clin J Sport Med. 2004 May;14(3):109-22.
6. Conley KM, Bolin DJ, Carek PJ, Konin JG, Neal TL, Violette D. National Athletic Trainers' Association position statement: Preparticipation physical examinations and disqualifying conditions. J Athl Train. 2014 Jan-Feb;49(1):102-20.

7. McKeown I, Taylor-McKeown K, Woods C, Ball N: Athletic ability assessment: a movement assessment protocol for athletes. Int J Sports Phys Ther. 2014 Dec;9(7):862-73.

8. Teyhen D1, Bergeron MF, Deuster P, Baumgartner N, Beutler AI, de la Motte SJ, Jones BH, Lisman P, Padua DA, Pendergrass TL, Pyne SW, Schoomaker E, Sell TC, O'Connor F. Consortium for health and military performance and American College of Sports Medicine Summit: utility of functional movement assessment in identifying musculoskeletal injury risk. Curr Sports Med Rep. 2014 Jan-Feb;13(1):52-63.

9. Jessee KB, Middlemas DA, Mulder DK, Rehberg RS. Exposure of athletic trainers to potentially infectious bodily fluids in the high school setting. J Athl Train. 1997 Oct;32(4):320-2.

10. Collins CJ, O'Connell B. Infectious disease outbreaks in competitive sports, 2005-2010. J Athl Train. 2012 Sep-Oct;47(5):516-8.

11. Weir JD. Effective management of epistaxis in athletes. J Athl Train. 1997 Jul;32(3):254-5.

12. Beam JW: Management of superficial to partial-thickness wounds. J Athl Train. 2007 Jul-Sep;42(3):422-4.

13. Harmon KG, Drezner JA, Gammons M, Guskiewicz KM, Halstead M, Herring SA, Kutcher JS, Pana A, Putukian M, Roberts WO. American Medical Society for Sports Medicine position statement: concussion in sport. Br J Sports Med. 2013 Jan;47(1):15-26.

14. Boden BP, Tacchetti R, Mueller FO. Catastrophic cheerleading injuries. Am J Sports Med. 2003 Nov-Dec;31(6):881-8.

15. Jacobson BH, Redus B, Palmer T. An assessment of injuries in college cheerleading: distribution, frequency, and associated factors. Br J Sports Med. 2005 Apr;39(4):237-40.

16. Fraley M. EMS management of catastrophic cheerleading injuries. EMS World. 2010 Oct;39(10):58-66.

17. LaBella CR, Mjaanes J; Council on Sports Medicine and Fitness. Cheerleading injuries: epidemiology and recommendations for prevention. Pediatrics. 2012 Nov;130(5):966-71.

18. National Center for Catastrophic Sport Injury Research Annual Report: http://nccsir.unc.edu/files/2014/06/NCCSIR-30th-Annual-All-Sport-Report-1982_2012.pdf.

19. Travers AH, Rea TD, Bobrow BJ, Edelson DP, Berg RA, Sayre MR, Berg MD, Chameides L, O'Connor RE, Swor RA. Part 4: CPR overview: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. Circulation. 2010 Nov 2;122(18 Suppl 3):S676-84.

20. Guskiewicz KM, Broglio SP. Sport-related concussion: on-field and sideline assessment. Phys Med Rehabil Clin N Am. 2011 Nov;22(4):603-17, vii.

21. Shields BJ, Smith GA. Cheerleading-related injuries in the United States: a prospective surveillance study. J Athl Train. 2009 Nov-Dec;44(6):567-77.

22. Shields BJ, Fernandez SA, Smith GA. Epidemiology of cheerleading stunt-related injuries in the United States. J Athl Train. 2009 Nov-Dec;44(6):586-94.

23. May KH, Marshall DL, Burns TG, Popoli DM, Polikandriotis JA: Pediatric sports specific return to play guidelines following concussion. Int J Sports Phys Ther. 2014 Apr;9(2):242- 55.

24. Boden BP, Jarvis CG. Spinal injuries in sports. Phys Med Rehabil Clin N Am. 2009 Feb;20(1):55-68, vii.

25. Boden BP. Prevention of catastrophic injuries in sports. Instr Course Lect. 2007;56:385-93.

CHAPTER 4

ENVIRONMENTAL

Environmental Safety Factors

By Sherry Cooney

The environmental factors of any cheerleading activity are extremely important to the safety and well-being of the participants. It is an area where the participants will require careful consideration on the part of advisors, coaches, supervisors and administrators. Responsible professionals should ensure that the selected environment has suitable space, adequate safety equipment and appropriate supervisory staff for the planned cheerleading activity.

Knowledgeable advisors and coaches should be able to anticipate the environmental needs of their cheerleading program and then ensure that the work-out and/or performing environment is conducive to safe participation. **If the environment compromises the safety of the participants in any way, the intended program should be modified and/or scaled downward to a point wherein safe participation can be reasonably assured.** Otherwise the program should not be offered until the appropriate environmental factors are present.

SUPERVISION

Providing adequate practices and appropriate supervision is the primary role of any coach or advisor. In order to provide adequate supervision they must be directly involved with their teams' practices and performances. This means that the coach must first check the space to ensure that it is appropriate for the intended activity; remain within a proximity that allows the coach to see and hear the activity in its entirety; and be in a position to intervene if the need arises. As always, the coach is the responsible professional whose role is to ensure a reasonably safe cheerleading environment. **While the coach's main responsibility is the safety of his/her cheerleading team, no system is foolproof.**

This chapter focuses on three specific environmental settings to which cheerleading teams are exposed throughout the course of any season: (1) indoor facilities; (2) outdoor facilities; and (3) game situations. While each of these environments is unique in respect to specific safety concerns, there are three underlying special needs that are consistent among each of these areas: **A) that the designated cheerleading area is adequate in size to the number of participants utilizing this space; B) that the area is appropriate to the type and level of activities that are intended; and C) that the coach's supervision is direct and constant.**

INDOOR FACILITIES

A primary responsibility of cheerleading coaches and advisors in the selection of an appropriate facility is to reasonably ensure the welfare and safety of the participants, regardless of the facility's other uses. For example, a gymnasium's utilization for basketball, volleyball, gymnastics and other sports, as well as for non-athletic functions such as meetings, plays and concerts, should not threaten cheerleading safety. Nor should

accommodations for spectators or visitors be allowed to interfere with proper supervision of the activity.

Areas for cheerleading participation, as well as for participants in concurrent activities such as basketball games, bands, etc., and for officials, visitors and spectators should be separated by some form of barrier and/or be clearly marked. Areas defined for partner stunts and pyramids, as well as tumbling runways and related matting should be carefully distinguished from walkways for officials, visitors and spectators. In essence, everyone in the gymnasium environment should know where she/he belongs and appropriate supervisory intervention should be made available to help insure this.

SAFETY GUIDELINES FOR INDOOR FACILITIES

If the size or space is not adequate or appropriate for the planned activity, it is the coach's responsibility to cease the activity or at least to modify the intended activity to within the scope of the facility's size.

FACILITY SIZE

1. The facility must be adequate in size (length, width and height) for the number of participants that will be practicing or performing.
2. The facility's space must be appropriate for the anticipated level of athleticism.
3. If the size or space is not adequate or appropriate for the planned activity, it is the coach's responsibility to cease the activity or at least to modify the intended activity to within the scope of the facility's size.

WALLS

1. Any protrusions, obstructions or columns should be properly and safely padded.
2. The location of doorways, windows and mirrors should be carefully considered in relation to all cheerleading activities, particularly tumbling.
3. There must be adequate space between tumbling runways, partner stunt areas, and pyramid building areas and the walls.
4. All cheerleading activities should be designed so as to minimize the possibility of making physical contact with these obstructions.
5. Cheerleading participants should be adequately informed and warned about any and all potential hazards in this regard.

CEILINGS

1. Ceiling clearance should be sufficiently high so as to preclude any possibility of making physical contact in the course of the anticipated cheerleading activity.
2. Light fixtures, air ducts, pipes, etc. should be adequately high so as to allow for safe conduct of the cheerleading activity below.
3. Whenever overhead spotting rigs and/or safety harnesses are used, they must be properly and securely attached to supporting pipes and/or beams.
4. The supporting pipes and/or beams themselves must have sufficient structural integrity so as to withstand safely the stresses characteristic to overhead spotting rigs and /or safety harnesses. Whenever in doubt, contact a professional architect for advice in this regard.

FLOORS AND SURFACES

1. Floors, as well as matting surfaces, should be level, smooth, clean and dry.
2. Matting may be beneficial, in particular with regard to repetitive tumbling skills. However, as will be outlined later in this manual, matting is not a fail-safe in protecting athletes from injury.
3. All hard surface practice areas should be covered with adequate matting (polyethylene resilient foam having a minimum thickness of 1 1/4") for repetitive tumbling practice and pyramids over two persons high.
4. Matting should be arranged properly so as to insure safe traffic flow patterns.
5. Matting should also be positioned so that, when performing, the cheerleading participants do not have to look into the direct glare of ceiling lights and/or direct sunlight through a window.
6. Concrete floors should be sealed with a commercial floor sealant to prevent mat damage due to moisture.
7. Matting should include proper connection pieces to ensure that mats do not separate, minimize gaps and minimize movement.

GENERAL

1. The lighting (candlepower) must be appropriate to the size of the facility and adequate in terms of the cheerleading activity. For artificial illumination, it is recommended that such illumination meets the standards of 50 fc (538 lx) as recommended for gymnasiums and field houses, Engineering Society of Recommended Practice RP-6.

2. The temperature (climate control) should be conducive to reasonable and safe conduct of the cheerleading activity.

3. Equipment, such as tumbling mats, landing pads, safety belts, etc. must always be secured against unauthorized use.

4. The training and/or performing environment must be set up to allow for appropriate supervision.

5. **The use of a trampoline, mini-tramp, double mini-tramp, vaulting board or any type of projectile device for that matter is not allowed for cheerleading performance, but may be used as a training device when properly supervised.**

OUTDOOR AREA

Similar to indoor facilities, when outdoors, cheerleaders often practice or perform in an area that was most likely designed for another sport or activity (i.e., football field, soccer field, grassy field, etc.). **The coach/advisor remains the responsible professional whose primary role is to ensure that the practice or performance area is suitable for the intended cheerleading activities.** As always, if the area presents a risk to the participants, then the coach must either cease all activity or scale down the intended activities in order to insure a reasonably safe environment

SAFETY GUIDELINES FOR OUTDOOR FACILITIES

1. There should be no physical obstructions in or near the practice/performing area.

2. It is the coach's responsibility to inspect the area for any debris prior to the start of every practice or performance.

3. It is the coach's responsibility to inspect the area to ensure that it is level, clean, and dry prior to the start of every practice or performance.

4. The practice or performing area should not be in the pathway of any other groups or individuals that might be present.

5. While grass and artificial turf serve as acceptable mediums for basic cheerleading activities, it is recommended that all advanced tumbling skills and pyramids over two- persons high be performed on a matted surface.

6. The lighting and climate factors can perhaps be the greatest challenge for outdoor activities in cheerleading. It is recommended that coaches take these factors strongly into consideration before and during the performance of any activities.

7. The coach must remain in a direct supervisory role as weather conditions, such as wind and rain, might change during the course of the practice or performance.

8. The outdoor training and/or performing area must be set up to allow for adequate supervision.

9. It is recommended that direct eye contact with the sun or any outdoor lighting fixtures be avoided during the performance of any partner stunt, pyramid or tumbling activity.

10. The coach should maintain constant vigilance to ensure that the prevailing conditions on or near the playing field do not interfere with the intended cheerleading activity.

GAME OPERATIONS

The single most important thing a coach/advisor can do to help promote safety in a game situation is to increase the cheerleaders' level of awareness in regard to their external environment. This means educating your team specific to when, where, and how they fit into the prescribed game's activities. Without this awareness, cheerleaders may place themselves in harm's way as they perform stunts, tumbling, and pyramids with little or no regard for the game going or what is going on around them. The coach/advisor still remains the responsible professional whose job requires making sure the external environment is conducive to the planned cheerleading activity.

While the coach's main responsibility is the safety of the cheerleading team, no system is foolproof. The following guidelines are recommended to increase the safety of cheerleaders in various athletic venues and game situations. As always, cheerleading coaches must use constant vigilance in monitoring this ever-changing environment. If a situation is deemed to be unsuitable or unstable, then the coach must either cease all activities or modify the level to which the team is performing to fit the current situation.

SPECIFIC SAFETY GUIDELINES FOR GAME SITUATIONS

1. **When the ball is in play, it is recommended that cheerleaders look at or face the field/court of play**

   At any time while a ball is "live" there is a risk that the ball, players or officials might inadvertently enter the designated space of the cheerleaders. Therefore, it is imperative that cheerleaders always be aware of the location of the ball, the players and the officials.

2. **Partner stunting, pyramid building, and/or tumbling should not occur while the ball is "live" or "in play."**

The cheerleaders are at risk anytime the ball is in play; therefore, they cannot safely execute their partner stunt/pyramid or tumbling while watching the ball. In the event that the ball and/or players/officials inadvertently enter the cheerleaders designated space, there is not adequate time to safely dismount and remove them from harm's way.

3. **It is recommended that cheerleaders not move onto the court during the "30-second" timeouts that occur in basketball games.**

   There is not sufficient time for the cheerleaders to move onto the floor, execute their stunts/pyramids/tumbling and then exit the floor without delaying the game. There is also the issue of safely dismounting prior to players and officials re-entering the court.

4. **In the basketball venue, it is recommended that coaches work with their cheerleaders to designate those individuals that will tumble on the court during timeouts. It is further recommended that coaches specifically choreograph these tumblers' pathways in relation to the rest of the cheer squad.**

   This is one of the instances where cheerleaders, players, and officials are all occupying the same space and a heightened awareness needs to be the coach's and cheerleaders' main responsibility. It is recommended that all non-tumbling cheerleaders enter the floor/court after the tumbling cheerleaders. This is designed to decrease the traffic on the floor/court. It is also recommended that the same policy apply to exiting the floor/court -- all non-tumbling cheerleaders should exit after or behind the tumbling cheerleaders. It is imperative that coaches stress safety first to their tumblers.

5. **In most instances, grass and turf are an acceptable substitute surface when cheering in an outdoor venue, i.e., football games.**

   It is the coach's responsibility to first check the area to ensure that the surface is dry, free from debris, and level or flat. Coaches should continue to monitor the area and check the surface throughout the course of the game to ensure that the surface has not undergone any significant changes that might affect safe performance.

   The rationale behind this is that field conditions are apt to be impacted if the weather conditions prior to or during the game change and/or worsen. With this in mind, coaches must remain in close proximity to the cheerleaders so that they are aware of the prevailing conditions and can use their best judgment in these instances.

   A primary difference between cheerleaders and the other athletes on the field is the amount and/or type of equipment the cheerleaders possess. Often times just adding a layer of clothing (i.e., a warm up suit and something with pockets) can drastically impact the safety of a cheerleader being cradled. The same principle goes for footwear. As conditions worsen shoes may become slippery causing elevated stunts to become very dangerous and tumbling almost impossible. Therefore, **coaches must always factor in equipment and how it might impact the safety of the cheerleader.** As always, when in doubt, coaches should cease activity until they feel confident that the environment is conducive to performing athletic activities.

6. **While poms, megaphones, and signs are highly effective in leading the crowd, they can become an obstacle and/or safety hazard. It is recommended that coaches evaluate their venue to ascertain the appropriate area where these items should be placed during the game when not in use.**

   Some cheerleaders hold poms in their hands while they execute sideline cheers or when stunting or tumbling, while others place their poms directly at their feet and utilize them only for specific sideline cheers. When held in the hands, poms do not appear to be an obstacle; however, when placed at the feet they can become a safety hazard for the cheerleaders. Consequently, it is essential that coaches educate their teams specific to this potential safety hazard, particularly when performing jumps or executing standing tumbling. It is important to further raise the level of awareness on the cheerleaders' part to look at their immediate environment before they perform.

   Many teams use their megaphones spontaneously and also choreograph them into specific sidelines cheers. It should be noted that megaphones used during the normal course of a game are a constant obstacle that must be addressed by coaches. It is recommended that cheerleaders place their megaphones immediately in front of them when not in use. This minimizes the risk of megaphones being placed too close to teammates who could injure themselves (jumping, standing tumbling) because they are unaware of the megaphone.

7. **Prior to the start of a game, it is the coach's responsibility to instruct the cheerleaders specifically where poms and megaphones are to be placed while performing "group" activities (partner stunts, pyramids, baskets, series tumbling passes, etc.).**

   It is recommended that the designated place be away from the playing field and well in front of the cheerleaders' performance area. Since venues are different, it is important that coaches address this issue during their pre-game warm up for each game.

8. When discarding cheer signs that have sharp corners, it is recommended that they be gently discarded or placed in a controlled manner.

   It's common practice for cheerleading teams to use signs to help lead the crowd. While this is one of the most effective ways to engage the crowd, signs can become a safety issue if not used correctly. When signs are used on the ground to lead the crowd, there is minimal risk. However, signs may become a risk when used during partner stunts and/or pyramids. The risk is increased especially during a cradle. The rationale is that the top person must be able to use their arms to assist with the cradle, and the sign may become a hindrance to proper catching by the top or bases. Therefore, it is recommended that they safely discard the sign prior to the cradle dismount.

9. **Prior to any athletic event, coaches/advisors and school administrators should work together to insure that a reasonably safe performing area has been specifically designated for cheer performances.**

   In an indoor environment, often times the fans or spectators can become a risk factor for the cheerleaders. The risk occurs when fans enter the cheerleaders' performance space as they enter or exit the gym, move to and from the concession stand, and just become overly involved in the game and its excitement. Consequently a specifically designated performance area should be made available for the cheerleaders that is out of the pathway of fans, players, officials, members of the band, and members of additional spirit groups that are also in attendance. The coach should assess the area and determine which, if any, cheerleading activities the area permits. As always, coaches must remain in close proximity to the cheerleaders during the course of the game in order to intervene should a safety issue arise.

10. **Coaches, advisors and cheerleading participants alike should always remember that nothing beats the exercising of good old-fashioned "common sense."**

    Whenever there is doubt specific to safety of the physical environment, the anticipated cheer activity should be canceled or at least modified to a level wherein safe participation can be reasonably assured.

ENVIRONMENTAL SAFETY GUIDELINES

1. A basic criterion for determining facility adequacy centers upon insuring sufficient space to safely conduct the preplanned cheerleading activity.
2. Be sure that the selected environment is appropriate to the number of participants, the type and/or level of anticipated activities and the required supervisory demands.
3. Areas for cheerleading participation should be separated from other concurrent activities (basketball games, band, etc.) by some form of barrier and/or be clearly marked.
4. Any protrusions, obstructions or columns in the participation environment should be properly and safely padded.
5. Cheerleading activities should be designed to **minimize** the possibility of making physical contact with these obstructions.
6. Ceiling clearance (including light fixtures, air ducts, pipes, etc.) should be sufficiently high so as to **preclude any possibility** of physical contact during participation.
7. Floors, as well as outdoor performing surfaces, should be level, smooth, clean and dry.
8. Artificial lighting should meet the standards of 50 fc (538 lx) for gymnasiums and field houses, Engineering Society of Recommended Practice RP-6.
9. All hard surface practice areas should be covered with adequate matting (a minimum thickness of 1 1/4") for repetitive tumbling activities, tosses, and pyramids over two (2) persons high.

Cheerleading Safety Equipment

CHAPTER 5

EQUIPMENT

Personal Equipment

By Richard P. Bunch

Cheerleading has emerged in recent years to become an activity as physically demanding as the events with which it is associated. As such, the equipment used plays a significant role in the safety and performance of the athlete. In this chapter, we will explore three specific types of equipment: 1) personal equipment; 2) spotting belt; and 3) mats.

In fact, **proper selection, care and use of personal equipment is as important to the safety and well-being of the cheerleader as the activity itself.** Proper outfitting is considered an essential safety ingredient and can actually serve to enhance performance. On the other hand, inappropriate personal equipment serves only to hinder safe performance and may well be a contributing factor, if not the direct cause, of an injury.

The personal equipment of cheerleaders typically consists of a variety of items including vests and/or sweaters, shirts, turtleneck body suits, warm-ups, sweatshirts, T-shirts, shorts, briefs, leg- warmers, socks and shoes.

The apparel selected for practice as well as performance situations should be snug-fitting and yet should allow for a reasonable freedom of movement. Loose fitting garments, especially V-neck shirts, pocketed shirts, and shirts with wide collars are not recommended because of their potential to "catch" and/or entangle another performer's foot and potentially, other body parts during the execution of partner stunts and pyramid routines.

Jewelry is prohibited in all practice and performance settings. These articles serve no useful purpose in cheerleading and present some significant hazards to the performing athlete. For example, earrings could become entangled in a sweater and/or be torn from the ear during performance. Watches, bracelets and rings could strike another performer and result in serious injury. Necklaces could swing up during jumps and/or tumbling maneuvers and strike the cheerleader in the eye causing momentary loss of vision or, worse yet, serious injury to the eye. In addition, they could become entangled with a limb or body part of another cheerleader and affect the overall safety of the performance.

The use of hard hair barrettes is not advisable because they could bruise and/or cut the scalp during execution of various tumbling and cheerleading maneuvers. They could also fall out of one's hair and be stepped on or tripped over resulting in a mishap. An acceptable alternative to keeping one's hair in place would be the use of soft pony tail holders or covered bands. These soft items serve an important safety function without hindering the quality of the performance.

Of all the personal equipment used in cheerleading, perhaps none is more important than footwear. When chosen properly, footwear for cheerleading can minimize the risk

of injury to the participants, enhance performance and provide maximum comfort for the athletes. The key areas for choosing appropriate footwear are: 1) cushioning; 2) lateral support; and 3) fit/comfort.

1) **Shoe Cushioning.** Intuitively, most athletes would accept the need for good cushioning in a sports shoe. Each individual would likely have his or her own terminology and definition for cushioning. The terms "shock absorption" and "dampening" are the more popular descriptions and can be used interchangeably to refer to the property of cushioning. Figure 5.1 shows how ground reaction forces change as a function of activity. Activities such as jumping and landing produce significantly higher forces than do running or walking. Athletic shoes characterized by adequate cushioning can help to minimize both chronic and acute injuries to the feet, knees and back resulting from high ground reaction forces inherent in cheerleading dismounts and tumbling.

   Well-cushioned shoes generally have a foam mid-sole which runs the entire length of the shoe. Also there is usually an additional thickness of foam (an extra 3/8 inch in most cases) within the heel portion of the shoe to help minimize the severity of impacts to the rear foot area.

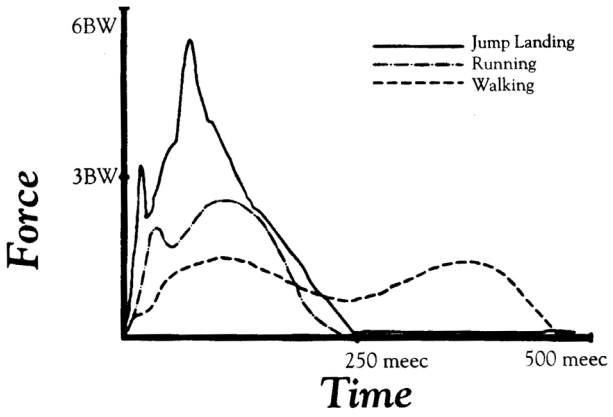


Figure 5.1
Ground reaction force as a function of activity.

2) **Lateral Support.** Modern cheerleading practices require footwear that is designed to provide adequate lateral support for the feet. In the past, many cheerleading shoes have used what is commonly referred to as "running construction." Such a construction offered excellent cushioning properties, but often failed to provide sufficient lateral support.

   The principal components which give lateral support to an athletic shoe are: a sturdy heel counter, reinforced leather, upper metatarsal support overlays, and, at least, a partial cup shell outsole. These features allow the shoe to respond appropriately to the lateral stresses resulting from side-to-side changes of direction realized in basing stunts, tumbling and dancing.

   Proper shoes for cheering are designed to hold the foot in place without sliding over the edge of the mid-sole. Cheerleading stunts in which the performer's legs are straddled wider than shoulder width also require this additional sidewall support. In fact, pyramiding one or more people while assuming a straddled stance posture greater than one's shoulder width further increases the side load on the shoe. **Consequently, athletic shoes having adequate lateral support are essential to performer stability and safety in cheerleading.**

3) **Fit/Comfort.** Amidst the wide array of features and benefits of high performance shoes, one common denominator emerges—a good fit. Shoe fit, in fact, is the very basis for building high performance athletic footwear. A shoe will perform no better than it fits.

   A properly fitted shoe should lace snugly with an even spacing between the eyelets. The materials in the forefoot of the shoe should not wrinkle excessively to accomplish this fit. **Approximately one "thumb width" (or 1/2 inch) should be allowed between the longest toe and the toe tip of the shoe.** The ball of the foot should be supported by the shoe's upper fabric without creating pinching or pressure points.

   The mid-foot of the shoe should also feel "snug" without excessive pressure. This should be true when the foot flexes as well as when it is placed flat on the ground. The arch area should be contoured without hot spots of pressure. Any arch discomfort will only be magnified during athletic activity.

   Excessive shoe width at the ball of the foot can be detected by pressing at the edges. Half a finger's width of material is generally too much. The foot should not overhang the shoe's mid-sole on the edge. In addition, heel width should be selected so that there are no gaps between the foot and the shoe. And finally, the shoe should not impinge the back of the heel when the foot is flexed. Pressure in this region may lead to Achilles tendon irritation.

   A final area of concern centers upon "wear." **Athletic shoes undergo tremendous stresses and should be immediately replaced at signs of undue wear.** These include: 1) uneven surfacing of the shoes' bottom; 2) any tears, rips or stretching in the shoes' covering; and 3) flattened or otherwise distorted inner surface of the shoes. Whenever there is any doubt concerning the selection, fit or condition of one's shoes, consult your coach/advisor.

Spotting Belts

By Jay Geist

Any activity involving motion and height creates the possibility of accidental injury. The severity of these injuries is usually increased worsened with increased height or when somersaults are attempted. With the ever increasing difficulty level of cheerleading skills, safety cannot be taken for granted. While performing any skill, safety should always take precedence.

Although many cheerleading programs do not have immediate access to spotting belts, this type of training device can serve as an excellent teaching aid. Essentially, **the spotting belt is a mechanical device that can be used to protect, as well as to assist, the cheerleader in the execution of a skill.** As the name indicates, it consists of a belt system that is placed around the waist of the cheerleader to which ropes are attached for the purpose of lifting, lowering and/or stabilizing the performer during the learning phases of certain skills. These ropes can be held directly by two spotters in order to assist in the performer's movements or they can be suspended from pulleys attached to the ceiling and manipulated by a single spotter. Regardless of the given situation, **the fundamental purpose of the spotting belt is to help protect the performer during the execution of a skill by preventing a high impact fall.**

In addition to the obvious safety factor that a properly used spotting belt provides the cheerleader, it can also serve as a great confidence builder in the teacher/learning process. Rather than having to focus upon the potential consequences of a mishap, the performer is better able to concentrate more directly upon the proper technique needed to successfully accomplish the intended maneuver. However, **it must be emphasized that the spotting belt should never be considered as a replacement for proper learning progressions and performer readiness.** Cheerleaders should never be permitted to attempt an advanced skill until they are physically ready and have learned the prerequisite skills and progressions. They should be reasonably comfortable with all aspects of the skills being attempted and have had proper instruction. If these rules are adhered to, a qualified spotter can use the belt to provide an extra margin of safety. In this way, a cheerleader can safely repeat the skill until he/she feels comfortable in executing the skill and the instructor believes that the skill can be done safely without the belt. The spotting belt is merely another tool that can be used in the cheerleading program to assist students in learning new maneuvers through proper learning sequences.

TYPES OF SPOTTING BELTS

There are two basic types of spotting belts. **The first and most fundamental type is called the standard spotting belt.** This type of belt consists of a strong, yet pliable material approximately 4 inches wide that encircles and buckles securely about the performer's waist. On each side of the belt, a metal "D" ring is attached. Secured to each "D" ring is a heavy duty swivel and corresponding rope. The swivel allows the cheerleader to rotate freely about his/her horizontal axis and/or waist without becoming entangled in the support ropes.

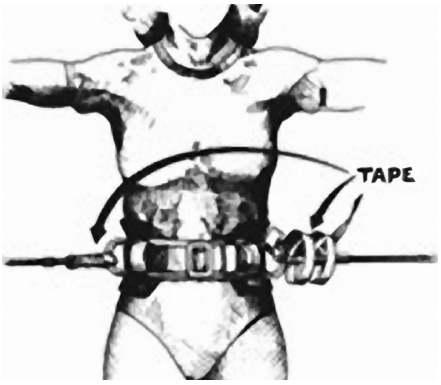


Figure 5.2
Standard spotting belt.

The second type of spotting belt, seen in Figure 5.3, is called the twisting belt and consists of two concentric circles of metal, one inside the other. The inner metal circle articulates with a standard type spotting belt by means of a series of shock and/or bungee cords. On each side of the outer metal circle, heavy duty swivels and corresponding rope are attached to provide the basic support mechanism for spotting the performer. Twisting rotation is made possible by means of the inner circle of metal rotating within the outer circle of metal that is attached to the ropes.

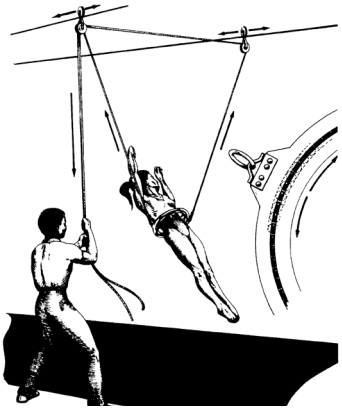


Figure 5.3
Twisting belt with traveling overhead suspension system.

The standard spotting belt has a uniaxial function and is designed to be employed when spotting handsprings and non-twisting somersault skills (i.e., forward and backward handsprings, forward and backward somersaults, etc.), as well as non-twisting dismount maneuvers characteristic to partner stunts and pyramids. By comparison, the twisting belt has a biaxial function and, as such, can be employed in spotting somersault oriented skills that also have a twisting component (i.e., full twisting backward somersaults).

It is recommended that the twisting belt be used only when a twisting maneuver and/or skill is being performed. This is because the twisting belt is heavier, less comfortable and more awkward than the standard belt. **No matter which belt is being employed, it is important to always ensure a tight (snug) fit. Loose and/or improperly fitted belts can slip and/or ride up and/or down the performer's waist resulting in serious injury.** Both types of spotting belts should be inspected regularly for wear particularly in those areas with moving parts (i.e., swivels, pulleys, metal ring attachments, and ropes). In addition, all moving parts should work freely and display minimal friction. This will help ensure proper performance of the belt as well as minimize the possibility of the performer becoming entangled in the ropes. And finally, **if metal clips are used to attach the rope to the belt, they should be securely taped in the "closed" position in order to minimize the possibility of becoming unfastened during use.**

METHODS OF USING SPOTTING BELTS

There are three fundamental methods of using the standard spotting belt and the twisting belt. These methods are: 1) handbelt spotting; 2) fixed overhead suspension spotting; and 3) traveling overhead suspension spotting.

Handbelt Spotting. The handbelt spotting method requires two spotters, one positioned on each side of the cheerleader. The spotters jointly assist the cheerleader through the maneuver by providing a lifting force on the ropes according appropriate to the needs of the performer and the type of skill being attempted. Spotters using this method must clearly understand the spotting requirements of the skill-in-question, be able to provide coordinated and timely assistance, and possess sufficient size and strength to spot the given performer. In preparation to spot, each spotter should wrap one hand securely about the rope a sufficient distance away from the performer so that the other hand can readily slide along the rope to a position closer to the performer. As the skill is being initiated, both spotters slide their respective hands down the rope and provide a "lifting" assistance and/or support to the performer's movement. This procedure provides for better leverage, making it easier for the spotters to spot effectively. (Refer to Figure 5.4.)

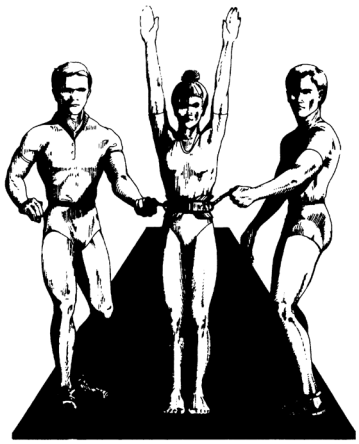


Figure 5.4
Example of handbelt spotting.

Fixed Overhead Suspension Spotting. The second method of using a spotting belt is by means of an overhead suspension system. This system consists of the spotting belt, two ropes, one single pulley and one double pulley. The pulleys are fixed to the ceiling and positioned sufficiently wide apart so as to allow an adequate angle of pull without interfering with the movements of the performer. The ropes from the spotting belt run up through the separate pulleys at the ceiling. The farthest rope from the spotter (single pulley assembly) also runs across the ceiling and, along with the near-side rope, passes through the double pulley assembly and continues down to the spotter standing on the floor. As the spotter pulls down on the ropes, the cheerleader is lifted. This action serves to assist the performer during takeoffs as well as to lessen the impact of landings. Throughout the entire maneuver, the ropes should remain lightly taut in order to prevent them from becoming entangled with the performer's movements.

The overhead suspension system requires the use of only a single spotter rather than the coordinated effort of two spotters working simultaneously. In addition, this system affords the spotter a more favorable leverage vantage than does hand belt spotting. However, in spite of this leverage advantage, it is important to consider the relative body weights of both spotter and performer. For example, if the cheerleader weighs more than the spotter, then the effectiveness of the spotter will be markedly reduced.

Traveling Overhead Suspension Spotting. As can be seen in Figure 5.3, the traveling overhead suspension system is identical to that of the fixed overhead suspension system except that the aforementioned pulleys are attached to an additional set of pulleys which run on two parallel steel cables that have been stretch mounted to the ceiling at their ends. The traveling rig allows the performer not

only to twist and/or somersault in the belt itself, but also to simultaneously travel the length of the overhead cables. Consequently, this system provides the cheerleader an opportunity to execute an entire tumbling sequence with the benefit of continuous spotting.

In order to maximize the safety of the performer, the spotter using an overhead rig should be very skillful. This is particularly true when using a "traveling" overhead rig because the spotter must also travel (run) in concert with the performer while at the same time execute the appropriate spot for the skill and/or series of skills being attempted. Obviously this requires a high level of expertise on the part of the spotter.

In addition, traveling overhead rigs do not respond as effectively during the actual spotting mode as compared to the fixed overhead rigs. This is due to the very nature of their construction (i.e. tensioned cables that may run from 10 to 50 feet or more will, under the force of the spot, tend to give-in or sag to some degree regardless of construction). Consequently, **use of a traveling overhead suspension system should be reserved only for those professionals who clearly understand the performance capabilities of this system and who have demonstrated adequate knowledge and competency in its use.** And finally, it should be noted that all of the practice progressions and spotting progressions which relate to hand belt spotting are applicable to spotting with any overhead suspension system.

MASTERY OF SKILLS

Throughout the learning process of any skill, the spotting requirements can and do change. In the early stages of learning a new and/or difficult skill, the spotting requirements are usually continuous from beginning to end. However, as skill proficiency increases, the spotting requirements correspondingly decrease. Once a reasonable level of skill mastery has been consistently demonstrated, the performer can then be weaned from belt spotting to that of hands- on spotting.

The art of spotting is a learned skill requiring time and practice. In order to insure a safe learning environment, **teachers/coaches should initially be trained in the proper techniques of belt spotting using skilled cheerleaders performing already learned, basic level skills. In addition, it's important to have the spotters do several dry runs or "timers" with the performer to insure that everyone knows what to expect as well as what to do during the actual skill.** This is particularly true whenever a cheerleader is learning a new maneuver and/or the spotters are not completely familiar with the spotting requirements.

SAFETY GUIDELINES FOR SPOTTING BELT SYSTEMS

1. Belts and corresponding rigging (swivels, pulleys, metal ring attachments, cables, ropes, etc.) should be inspected regularly, adequately maintained, and replaced at the first sign of undue wear.
2. Whenever metal clips are used to attach the ropes to the belt, they should be "taped" in the closed-position in order to minimize the possibility of becoming unfastened during use.
3. Regardless of the type of belt being employed, always insure a tight, snug fit. Loosely oriented or improperly fitted belts can result in serious injury.
4. Never use spotting belts without proper matting.
5. Always consider the relative weights of spotter and performer. Whenever using overhead spotting rigs, be sure that the spotter weighs as much as, and preferably more than, the performer.
6. Safe use of spotting belts requires time, practice and experience on the part of the spotter. Spotting belts should only be used by adequately trained professionals.
7. Communicate clearly with the cheerleader. Be certain that teacher and cheerleader alike have a precise understanding of how and when the maneuver is to be performed and spotted.
8. Whenever there is doubt of any kind, always over-spot the performer.
9. Spotting belts should never be considered as a replacement for proper learning progressions and performer readiness.
10. REMEMBER THAT THE PRIMARY PURPOSE IN ANY SPOTTING SITUATION CENTERS UPON PROTECTION OF THE PERFORMER'S HEAD AND SPINAL COLUMN.

Mats for Cheerleading Activities

By Scott A. Roth

WARNING!

No mat is a fail-safe against injury. Risk and Safety management in an activity that involves motion or height is a planned, implemented, and practiced environment, not a mat!

When used correctly the right mats can vastly reduce the probability of injury. However, **NO MAT will absolutely eliminate the possibility of injury including quadriplegia or even death.** Never assume that any mat is an acceptable substitute for instructional skill progression, a qualified spotter, or spotting apparatus. It is the responsibility of both the user and instructor to know their individual abilities and limitations regarding skill development and advancement. It is essential that the instructor fully understands the extent of their student's ability, and always proceed cautiously.

Mats used in cheer skill development are generally constructed using two basic materials, vinyl and foam. Covers are made using 14 to 22 oz. knife coated, or laminated vinyl. Foam cores consist of Polyurethane or Polyethylene foam, and in some cases a combination of both.

Polyurethane is an open-cell soft foam that will absorb energy over time and space when compressed. It is intended to abate as much energy as possible through deceleration before the foam reaches absolute compression, or bottoms out. This type of foam is used in various Densities, IFD's (Indentation Force Deflection), and thickness depending on the mats intended application.

Polyethylene is a closed-cell resilient foam that offers a better return as a rebound or tumbling surface. It can be found in the construction of CBF (Carpet Bonded Foam), folding panel mats, and as part of the foam configuration in a CLM (Competition Landing Mat). The Polyethylene used is generally a 2 lbs. Cross Linked material, in 1.25" or 2" thickness, depending on the mats intended application.

Density is a measurement of the mass per unit volume. It is measured and expressed in pounds per cubic foot or kilograms per cubic meter. Density affects foam durability and support. Typically, the higher the polymer density, the better the foam will retain its original properties and provide the support and comfort it was originally designed to produce.

Indentation Force Deflection (IFD) is a measurement of foam firmness. Although it is often thought that higher density foams are firmer, firmness is independent of foam density. It is possible to have high density foams that are soft, or low density foams that are firm, depending on the IFD specification. IFD is a measurement of the surface feel of the foam and relates to comfort.

IFD is measured by indenting (compressing) a foam sample 25 percent of its original height. The amount of force (in pounds) required to indent the foam is its 25 percent IFD measurement. The more force required, the firmer the foam. Flexible foam IFD measurements range from 10 pounds (super soft) to about 80 pounds (very firm).

When considering the type of mats necessary for your needs you must consider the application. The most obvious application is competition. As a safety protocol, the requirements for competition are generally mandated by a governing body, to ensure that the competition surface is consistent from event to event.

CBF (Carpet Bonded Foam) is the most widely used mat in cheer competition, and training surface in cheer gyms. The foam used in this product is generally 1.25" or 2" resilient 2-lbs Cross Linked Polyethylene, with short nap needle punch carpet flame laminated to the top surface. Whether it's a single element, tumbling series, or stunting, CBF provides a firm stable platform for the athlete/s to perform and train. CBF is an excellent option when the space must be shared with other activities and frequent set up and teardown are required.

A standard roll of CBF is 6' x 42' x 1-3/8" or 2", and can be easily cut to fit a specific space in the gym. Nine standard rolls create a competition surface 42' x 54'.

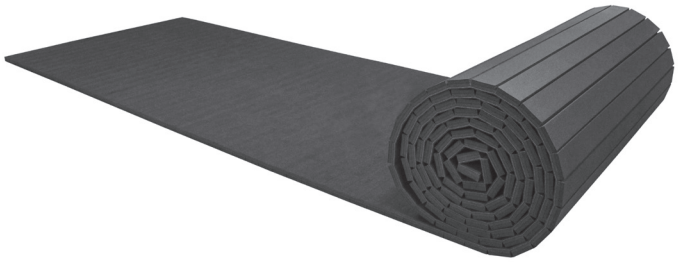


Figure 5.5
Example of Carpet Bonded Foam.

CBF can be used directly on the floor, as well as on top of Spring Decks and Rod/Power Tumbling Floors. When used on Rod/Power Tumbling Floors manufacturers will recommend using a 2" base layer of Trocellen foam, in conjunction with 2" top layer of Scrim backed CBF.

Folding Panel Mats are the most common multi-purpose mat available. This category of mats also generally uses 1.25" or 2" resilient 2-lbs Cross-Linked Polyethylene, with a vinyl cover. The benefits of this category of mats are that they come in a variety of sizes and fold easily for storage, portability, or to create skill-stations around the gym. Additionally, they can also Velcro together to create a single larger continuous matted area or extended tumbling strip. There are some Polyurethane folding panel mats available, but they are not recommended for use a tumbling mat. Consult a reputable mat manufacturer whenever in doubt.

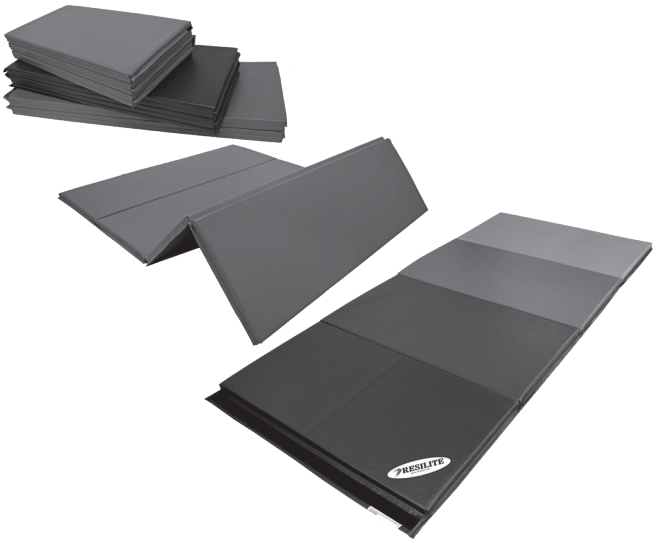


Figure 5.6
Examples of Folding Panel Mats.

WARNING! Mats constructed using deeper **Polyurethane** foams have been known to create an injury producing phenomena commonly referred to as **encapsulation.** Encapsulation occurs when the foam in a mat is compressed on impact such that it creates an indentation or pocket (also referred to as **cratering**). This condition can trap and seize the motion of the initial contact body part while the rest of the body continues to travel. Head, neck and/or chest-first landings should be avoided at all times.

While the possibility of encapsulation exists due to indentation, it is an unavoidable reaction necessary for the foam to absorb energy. Therefore keep in mind softer does not necessarily mean safer. It's not about what you land in, as much as it is about correct landing technique.

4" Throw Mats are excellent for use on top of CBF or CLM's to soften the initial impact of an anticipated feet first landing. They are a good option stacked on top of a modular pit to firm-up the surface and help minimize the potential of encapsulation. The foam core in 4" throw mats generally have a higher IFD than thicker mats, as the minimal 4" depth of the foam can be easily penetrated through the impact. They should never be placed directly on a hard surface as a landing mat, i.e., wood or concrete floors.

8" and 12" Skill Cushions are excellent multi-functional mats that are easily relocated throughout the gym. They provide more energy absorbing material simply through depth, and may have a lower IFD than 4" Throw Mats. They are also a good option for skill development, and as a surface landing mat stacked on top of modular pits.



Figure 5.7
Examples of a Throw Mat and Skill Cushions.

18", 24", and 32" Modular Pits are generally used as a dismount base at the end of a rod floor or tumble trampoline. It is advisable to use a surface mat such as a Folding Panel Mat, Throw Mat, or Skill Cushion to displace the energy over a broader area and reduce the probability of encapsulation. They are also excellent for teaching skills that require an extended or full body landing.



Figure 5.8
Examples of Modular Pits.

Skill Development Shapes come in a variety of shapes and sizes and are used for the development of basic through advanced skills. These products are also made using primarily Polyurethane foam in their core. The IFD is generally higher as this category of products requires resiliency to hold its shape and support the student through the entire skill.



Figure 5.9
Examples of Skill Development Shapes.

Wainscot and Protective Padding is a category not normally associated with mats. Today gyms must utilize all available space which can result in landing and run out areas in close proximity to walls, windows, and support columns. Wainscot panels are generally 2" to 2.5" thick pads, using either Polyethylene or Polyurethane foam, with a wood backing for support, and covered in vinyl. Wainscoting can be customized to fit door frames, fixtures, and protruding corners. Column or beam pads are custom made to a fit specific support columns or structural beams made using 1.25" or 2" Polyethylene, covered in vinyl.



Figure 5.10
Examples of Wainscot and Protective Padding

Inspecting your mats should be done frequently to determine their overall condition. Tears, holes, and loose covers can be a trip hazard. When possible open the cover of your mats and inspect the foam core for wear, tears, or holes. If a mat receives frequent impacts in a localized area and the foam is showing signs of deterioration, or worse has broken down to the point where the mat bottoms out, replace it. You may be able to relocate it for use where it will have a less significant role in regard to the safe environment of your gym.

Care for your mats is just as important as inspection. Similar mats can have varying life spans from gym to gym. This makes it difficult to predict the life span of any mat. The life expectancy of a mat is ultimately determined by the amount of stress it endures through use, and how it is cared for when not in use. Consider a set of tires. A race car driver can go through several sets of tires in a single race, while the average family car may make it as far as 80,000 miles on one set. Hence, if a mat receives a significant number of localized impacts from high level skills, it's going to breakdown faster than if the same mat was used for low impact developmental classes. **As the number of impacts increase, so does the rate of deterioration.**

Mats should be used and stored lying flat. Leaving a mat draped over an apparatus, or folding it where there is no seam for it to fold, can over stress the materials and permanently damage the mat. Use and care for your mats properly to maximize both the life of the mat and your investment.

Mats are an intrinsic element in risk mitigation in the gym and a significant but necessary financial investment in your athletes and your business. Keep surfaces clean and disinfected for the sake of the students (visit the manufacturer's web-sites to find their recommendations for cleaning mats).

REFERENCES

Copeland, D., Mats For Cheerleading Activities, George, G.S. (Ed.) 2006. AACCA Cheerleading Safety Manual (3rd Ed), Memphis, TN: UCA Publications. efoamstore.com; Density, and IFD.

SAFETY GUIDELINES FOR CHEERLEADING MATS

1. **WARNING! Always remember that mats of any kind are not a fail-safe to injury. Never land on head, neck, or back onto any type of mat, as serious, catastrophic injury, or even death could result!**
2. **Never depend on matting as the primary safety device.** Mats must never be used as a safety device in place of performer readiness, appropriate skill progressions, proper spotting, and competent instruction/supervision.
3. **Appreciate the performance limits of mats.** To help insure a safer environment, coaches, advisors and participants alike should have sufficient knowledge, understanding, and appreciation of the use and performance limits of mats. Whenever in doubt, consult the mat manufacturer.
4. **Select mats carefully.** The type of mats selected should be appropriate to the activity, sufficient in amount, and properly setup.
5. **Use basic and/or fold-out mats for their intended purpose.** Properly designed basic mats can and should be used as a tumbling surface for conventional cheerleading maneuvers. They can also be used as a primary surface upon which "landing mats" are placed.
6. **Never use "landing mats" for a tumbling take-off surface.** Landing mats provide "shock-absorption" and are designed for just that, i.e. "landings," and not "take-offs!"
7. **Use additional mats where appropriate.** Whenever new and or difficult skills are being performed, provide additional matting where appropriate. As skill proficiency increases, the amount of matting can be decreased accordingly.
8. **Inspect mats carefully on a regular basis.** Mats should be inspected regularly for tears, soft spots, separation of foam, and fatigue (failure to perform adequately). Defective mats should be removed immediately from service and the activity should be adjusted accordingly.
9. **Safe use of mats requires steadfast vigilance.** Coaches, advisors and performers alike should maintain constant vigilance regarding potential problems that can arise during the activity and make the necessary safety adjustments i.e., mat slippage on floor, mat separation, performer slippage, uneven mat surface, overlapped mats.
10. **Always follow the manufacturer's guidelines.** Reputable manufacturers provide important information regarding selection, use, installation, care and maintenance of mats. These guidelines should be followed carefully to help insure safe conduct of the cheerleading activity.

CHAPTER 6

SPOTTING

Spotting and Cheerleading Safety

"Spotting is not 100% fail-safe. Even under the very best of conditions, the window of foreseeability is never fully opened and the element of risk is forever present"
- Gerald S. George, Ph.D.

Philosophy of Spotting

By Jomo K. Thompson

The term "spotting" can be defined as any form of physical assistance that a cheerleader receives during the execution of a skill or a series of skills. Its applications are observed in most training and competitive situations, at all levels of performance and with varying degrees of effectiveness. As is the case with any type of assistance, the value of the technique is dependent upon the way in which it is employed.

A primary purpose of spotting centers upon protection of the cheerleader from injury during the execution of a skill. This becomes particularly important in the learning and performance of any "somersault" oriented maneuver as well as any of the various "catches" commonly observed in cheerleading routines. Maneuvers such as these inevitably require the performer's body to become "inverted" and, as such, the potential for serious, catastrophic injury or even death resulting from a mishap is increased. Consequently, **protection of the performer's head, neck and back becomes, without question, the most important function in spotting.**

A second, yet still very important, purpose for spotting is to assist the performer in the learning of new and/or difficult skills. Fear is a common response to a near mishap as well as to any new and/or unfamiliar activity. The role of a spotter makes this adjustment easier by providing both physical and emotional support, permitting increased skill repetition and enhancing the performer's confidence level.

Cheerleaders cannot and should not be expected to learn and practice new and/or difficult skills entirely on their own. **Cheerleaders must be taught using a well-planned, systematic program, one which emphasizes the use of appropriate skill progressions that are scrupulously monitored by the coach.** These progressions usually involve a series of "lead up" skills that often require some form of spotting. When movement techniques are practiced and learned in a carefully controlled environment, the cheerleader's confidence level is readily enhanced and the potential risk of injury is minimized.

Safe and effective planning of every cheerleading program should include careful consideration of a qualified spotter/coach in relation to: 1) the intended activity; 2) the number, age, experience and ability levels of the participants; and 3) the environment and available safety equipment. The need for special matting and spotting equipment is best determined by carefully matching the participants' ability levels to that of the difficulty level of the skills-in-question.

Special matting and spotting equipment can include landing mats, skill cushions and spotting belts. **As is the case with all gymnasium equipment, the coach/supervisor must assume the primary responsibility not only for safe and appropriate use but also for**

assuring proper installation, care and maintenance of these training aids.

Regardless of the activities planned, the coach/supervisor must be prepared to provide for appropriate spotting. Because of the very nature of cheerleading, it is both necessary and permissible to use student spotters. In many of the partner stunts as well as in pyramid building, cheerleaders are required to spot one another during the actual maneuvers as well as in most dismount phases. It is important, however, that the coach select student spotters based upon age, maturity, size, experience, physical readiness and current ability level. **For the more complex tumbling and acrobatic skills, particularly those involving a "somersault", spotting should be reserved only for qualified coaches who possess sufficient training and experience in advanced spotting techniques.**

A practiced spotter/coach should know and be readily able to "read" the cheerleader or the skill. Anticipating problems requires adequate knowledge of the cheerleader's capabilities, thorough understanding of the given skill and sufficient experience at spotting various levels of skill performance. Subtle clues such as head movements, facial expressions, hesitations, or even remarks made by the performer, are examples of signs which help indicate either trust in the spotter and have confidence in the skill, or the lack thereof. Sometimes a cheerleader would rather "throw" a skill and risk injury rather than possibly disappoint the coach and/or teammates. Yet, since the safety and well-being of every performer is of primary importance, signs such as these serve to play an important part in helping the spotter/coach to better assess whether the skill should be performed, performed with a spot, or not performed at all. **Always remember, a good spotter is one who is observant enough to anticipate potential problems and effective enough to provide continuous, safe spotting.**

SPOTTING – A LEARNED SKILL

Learning to become an effective spotter is a developed skill and really no different than learning to become an excellent performer. Both require attaining specific skills and knowledge and take time and hard work as well as constant vigilance with tedious attention to detail.

As with other skills, spotting should be taught in a progressive manner. Spotting techniques should be learned on the ground before moving on to spotting low level skills. Proficiency in spotting at these levels should be demonstrated before advancing to the next level skill, and so on. Spotting skills should be continuously evaluated by the coach in order to properly match spotters with cheerleading skills they are entrusted with protecting.

SPOTTING IN PERSPECTIVE

Perhaps the most fundamental area of concern centers on coaches and cheerleaders who rely too heavily on spotting as the fail-safe. A specific concern is cheerleaders who are attempting to execute stunts that are too difficult for their ability levels. This rather common scenario should be strictly prohibited.

It should be emphasized that spotting, even under the very best conditions, can never be thought of as 100% fail-safe to serious injury. Always remember that appropriate spotting merely helps to reduce and/or minimize the risk of injury, but cannot totally eliminate the risk of injury, including serious injury, or even death. The most important considerations are 1) performer readiness; 2) proper teaching; 3) progressions and 4) ensuring environmental factors. In fact, these factors should be assessed prior to the spotting activity to minimize the risk of injury during execution of the skill. **Consequently, the act of spotting should not be relied upon as the initial, but rather the final ingredient in terms of performer safety.**

SPOTTING – A SACRED TRUST

Although the act of spotting is a "skill" in and of itself, it is somewhat unique in that two (or more) people are jointly involved in a coordinated effort to attain a single goal. And since the number of participants involved in this collective effort always involves more than one person, the potential for error or mishap can also increase. This sometimes precarious interrelationship, perhaps best described as a "sacred trust," places specific requirements on both spotters and participants. **It is therefore essential to the safety of the performer and to the success of the learning experience that the following spotting guidelines for cheerleading be followed carefully.**

SPOTTING GUIDELINES FOR CHEERLEADING

1. ALWAYS BE KEENLY AWARE THAT THE PRIME CONSIDERATION OF SPOTTING CENTERS UPON PROTECTION OF THE PERFORMER'S HEAD AND SPINAL COLUMN!
2. Be sure the difficulty level of the skill/maneuver is appropriate to the capabilities and experiences of the performer(s).
3. Learn to spot effectively the most basic skills first. Allow sufficient time to adequately master each level of spotting progressions.
4. Establish a clear and accurate communicative link with the performer.
5. Be absolutely certain that both you and the performers(s) are in the proper position and ready to physically interact.
6. Be sure you know, understand, and appreciate the full potential of the skill/maneuver, particularly the more critical aspects of how to spot it.
7. Carefully match your own physical readiness and capabilities to that of each individual performer. Always ensure that the margin for safety is overwhelmingly in the performer's favor.
8. Learn what to expect from each cheerleader. Make every effort to read individual weaknesses.
9. Be prepared for the unexpected. Maintain constant vigilance throughout the skill/maneuver in its entirety.
10. Develop a healthy respect for the risks and potential hazards involved in any spotting situation. Know your limitations.

Spotting in Tumbling

By John Roethlisberger, Christine Calvert, & Jason Hylton

Spotting can be defined as any form of physical assistance that a performer receives in the execution of a skill or a series of skills. **The primary objective of spotting is the protection of the participant from injury during the execution of a skill and is particularly important in the learning and performance of any inverted tumbling maneuver.** Skill repetition, assisted by the spotter, can enhance muscle memory and increase skill performance and retention. By removing or reducing a fear of falling and/or injury, a spotter can greatly augment the participant's ability to practice the skill while concentrating on the process and not simply focusing on a possible unwanted outcome. Furthermore, appropriate assistance allows the participant to complete the skill with an added sense of confidence.

The relationship between spotter and performer is based upon trust, mutual understanding of the skill being attempted, and anticipation of the unexpected. This relationship cannot be taken lightly. Particularly important is that the performer not be artificially lifted by an over-zealous spotter.

While seemingly simplistic, the act of spotting is as much a skill as the specific cheer maneuver itself and requires considerable practice in carefully controlled situations. **The key to effective spotting is to stand where the major component of the skill will occur so that the spotter can receive the weight of performer in order to better protect his/her head and cervical spine.**

METHODS OF SPOTTING

There are essentially two methods of spotting tumbling for cheerleaders: **1) manual manipulation** (spotting by hand), and **2) the spotting belt**. Each method has specific advantages and purposes in the gym. It is the responsibility of the instructor/coach to know when and how to safely use the appropriate method as well as when and how to make the transition from one method to another (i.e., from the spotting belt to manual spotting).

The decision on which spotting method to employ is based upon several factors. These factors include the size and ability level of the cheerleader, the relative difficulty and/or complexity of the skill being performed and the ability of the spotter. **Whenever there is doubt regarding which is the more appropriate method for a given situation, do not allow the performer/s to attempt the skill until the matter has been satisfactorily resolved by all concerned.**

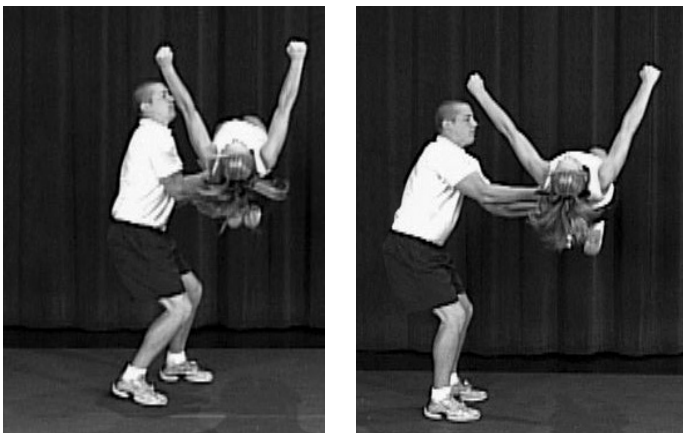
Manual Manipulation

Manual manipulation refers to the "hands-on" assistance that a spotter provides the cheerleader in the learning

and/or performance of a skill or series of skills. It is probably the most widely used spotting method, particularly at the primary levels. Manual manipulation, or hand spotting, allows the spotter the freedom to lift, manipulate and/or catch the performer without being encumbered by a hand-held belt. It offers the spotter the potential to exert various forces necessary to the proper and safe execution of a skill (i.e., lifting, twisting, rotating, etc.), while still remaining ready to assist the performer in a safe landing.

While hand spotting is the preferred method for those qualified, it requires considerable training and experience in effective use of the hands. A strong, alert spotter who has adequate knowledge of skill techniques and mechanical leverage principles can and will continue to improve through practice and experience gained in the teaching/learning setting.

Hand spotting is an extremely important teaching aid and its specific techniques should be continually upgraded in order to correlate effectively with the simple-to-complex skill progressions being learned and performed. In the later stages of learning, hand spotting permits greater freedom of execution and allows the performer to more readily develop the confidence necessary to ultimately perform the skill unassisted.



(a) good *(b) poor*

Figure 6.1
Example of good vs. poor technique in spotting a standing backward somersault.

A major safety concern in hand spotting is the tendency of the spotter to stand too far away from the performer and as such not able to support the performer's body weight in their hands. More often than not, this is due to poor or inadequate training specific to the skill-in-question as well as lack of prior experience in spotting the more basic skill levels.

Although a performer mishap can occur quickly and unexpectedly (which necessitates the spotter standing close), it is equally imperative that the spotter not stand too close so as to hamper the performer or be exposed to injury or collision. Knowing precisely where to stand in order to spot effectively is essential to the safety of the performer. Figure 6.1 provides a comparative example of good technique and poor technique in spotting a standing backward somersault.

In addition, it is essential that the spotter be situated approximately midway between the take- off and landing points of the skill and be prepared to move in whatever direction necessary. Such a consideration will provide the spotter with a better opportunity to anticipate and follow-through the movement sequence. Because hand spotting techniques can become quite intricate and complex, they must be systematically developed and continually practiced. This will help to insure a safer teaching/learning environment. (See Figure 6.2)

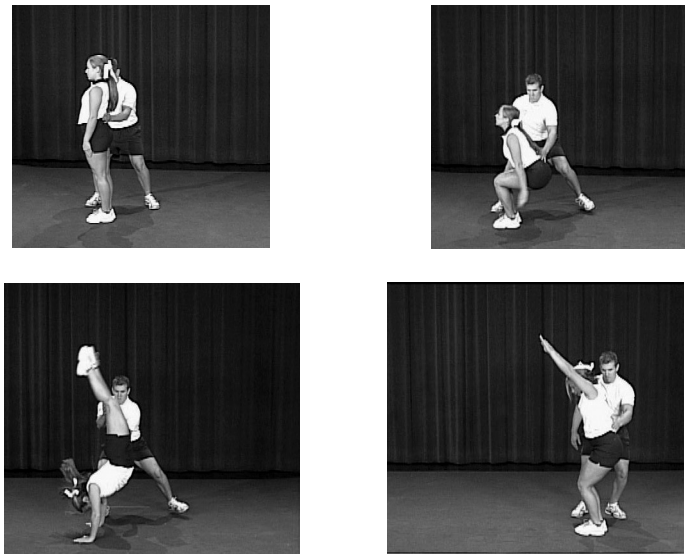


Figure 6.2
Hands-on spotting of a backward handspring.

When spotting a beginning level cheerleader, it is often advisable to have "hands-on" contact throughout the entire skill. Though it may seem inconvenient at times, continuous "hands-on" spotting, which is recommended, will prove worthwhile since the beginner cheerleader needs time to develop confidence and trust. Later, as skill proficiency increases and more freedom is required, the spotter must learn where and at what point to begin weaning the cheerleader away from spotting assistance. Although each situation may be somewhat different, this information is acquired through time and experience, and is dependent upon the skill-in-question and the specific readiness of each individual performer.

It must also be remembered that many of the skills involved in cheerleading include hand spotting as a fundamental part of the maneuver (i.e., basket catches, pyramid

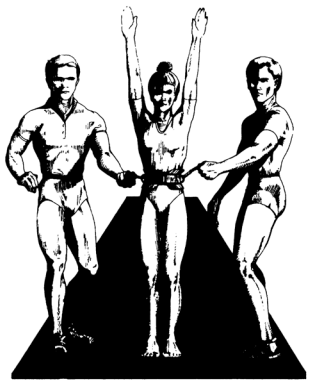
dismounts, etc.). **Since student spotters are used in these situations, it is imperative that they be properly taught and allowed to carefully and judiciously practice the simple-to-complex hand spotting progressions under the direct supervision of a competently trained professional.**

The Spotting Belt

A second means of spotting is with the use of a hand-held belt. Though not as widely used now as in the past, the hand-held spotting belt does have specific purposes and advantages in certain teaching/learning situations. Proper use of the belt (to avoid entanglement or mishaps) involves a coordinated effort on the part of both spotter and performer. **All parties should have a clear understanding of what, when, where and how the skill is to be spotted and performed.**

Although spotting techniques can and do vary according to each individual situation, Figure 6.3 illustrates a typical handbelt spotting example. Notice that each spotter firmly grasps his respective rope in one hand at a comfortable length from the performer. *(It's often a good practice to wrap the rope around one's hand to further insure a safe and responsive spot.)* As the skill actually begins, the spotters' second hand quickly moves in and wraps around the rope-held hand to provide additional support.

Figure 6.3



Example of typical handbelt spotting.

If a run is involved, longer ropes are required so as to allow adequate freedom of movement for both the spotters and the performer. In these situations, the spotters should allow the ropes that are between the performer's waist and their respective hands to hang slightly (dangle) in a small loop. As the time approaches when the actual spot is required, the second hand of each spotter quickly slides up the rope to a point close to the belt (next to the performer's waist). In so doing, a better leverage advantage can be obtained with the second hand, thus giving the spotters a greater margin of control over the performer. Finally, if a round-off is involved, the longer ropes can be wrapped halfway around the cheerleader's waist so as to unwind during the performance.

Spotting with the hand-held belt may, under carefully controlled situations, be entrusted to student participants. However, they must first be taught the proper fundamentals of its use. These fundamentals include a demonstrated knowledge of the directions and amounts of run, lift and rotation needed as it relates not only to the given performer but also to the specific skill being attempted. In addition, student spotters must also be made to demonstrate adequately the physical capabilities and techniques characteristic to spotting the skill-in-question. Student spotters can be an asset to a safe learning environment provided they are judiciously taught how to safely use the hand-held belt and are carefully monitored by competent teachers and coaches.

Other Spotting Devices

Handbelt spotting can also be employed using two additional devices: 1) fixed overhead suspension system; and 2) traveling overhead suspension system. A fundamental advantage in the use of either of these systems centers upon the fact that only a single spotter, rather than the coordinated effort of two spotters working simultaneously, is required.

SPOTTING RULES FOR TUMBLING SKILLS

Rule #1: Spot Within Your Ability Level

First, **don't ever spot anything you are not completely comfortable spotting given the situation in which you are spotting.** What does this mean? The first part is obvious. For example, if you have never spotted a full twisting somersault, you shouldn't jump in and spot one without building up to it and training yourself first. Not all situations are the same. Spotting someone on their first attempt at a back tuck is different than spotting someone who can already do it, but just needs a warm-up spot. The less proficient the tumbler is the more proficient you as a spotter need to be. As a spotter, imagine the worst action the athlete could do in the middle of a skill. If you don't feel comfortable that you could help them land safely, you should not spot this skill.

Rule #2: Be Physically Prepared to Spot

Regardless of the skill you are spotting you should feel that you can carry the tumbler though the skill almost completely and safely should something go wrong, e.g. the athlete stops midway through a skill. **Essentially, you, like the tumbler, need to be physically prepared and conditioned.** In many cases this means you will need to be able to hold the entire weight of the athlete should the situation arise. Make sure you are conditioned, warmed up and physically strong enough to spot the cheerleaders you are coaching. Train and condition yourself to spot in

the same manner you expect your athletes to perform in tumbling. Failure to be physically prepared to spot also increases significantly the potential of injury to the spotter.

Rule #3: Don't "Perform" The Skill for Your Athlete

If the tumbler isn't ready to do the skill with a high likelihood of success, do not, as the spotter, allow the athlete do the skill, or worse yet, do it for them. This is something that happens too often in the cheer world, but also in gymnastics. For example, you have someone learning a back tuck. If the tumbler has done the proper amount of lead ups and progressions, doing the back tuck should almost be a formality. The spotter should be prepared to complete the skill for the tumbler, but shouldn't have to do much more than follow the athlete through it, even if it is the first time. If the athlete has prepared properly, it should not be a big jump to move to the next, more difficult skill. This is a hard rule to adhere to as a coach, especially with the pressure of tryouts and parents. It is a rule that will prevent injuries to the athlete and spotter. If you are doing more than 25% of the skill for the tumbler, they aren't appropriately prepared and need to master the progression more before moving on.

SPOTTING FOR TUMBLING SKILLS

Basic Skills

1. **Forward Roll:** A tucked roll in the forward direction performed by squatting down, placing hands on the ground shoulder width apart, tucking the head in (chin down), rolling onto the upper back, and continuing to a standing position.

2. **Backward Roll:** A tucked roll in the backward direction performed by squatting down with the hands positioned next to the ears (palms up), tucking the head in (chin down), rolling backward while placing the weight of the body on the hands (not the head), and continuing on through a squat stand position to a standing position.

   Spotting: On both rolls, place hands about the waist of the performer and provide a "lifting" assistance particularly during the inverted phase of the movement.

Intermediate Skills:
Bearing weight in arms and shoulders

1. **Cartwheel:** The cheerleader should be able to perform a handstand as a prerequisite. A cartwheel involves moving sideways through a straddled handstand position. With the feet in a staggered position, the hands are sequentially placed in front of and in line with the body while the lead leg is driven over the head. As the performer moves through the straddled handstand position, the weight of the body is shifted from the hands to the feet in the same sequential fashion as before.

   Spotting: Place hands around the waist of the performer and provide a "lifting" assistance particularly during the hand support phase.

2. **Round-Off:** A cartwheel with a turn through the inverted position followed by a vigorous snap-down of the legs (feet together). The performer should finish facing the opposite direction from which s/he began. (Ultimately the Round-Off should be initiated from a run and hurdle).

   Spotting: Place hands around the waist of the performer and provide a "lifting" assistance particularly during the hand support phase.

3. **Front Handspring:** A skip-step (hurdle) forward into and through a handstand by a vigorous one-two kick of the legs and a strong push off with the hands and landing in an upright standing position.

   Spotting: As the performer places his/her hands onto the mat, the spotter should place an arm around the performer's waist (to provide support) and a hand on the performer's closest arm (to control rotation). Maintain contact with the performer until completion of the skill. Care should be taken not to let the performer over rotate the handspring which can happen with a strong push and too much assistance from the spotter during the push phase.

ADVANCED SKILLS

Caution: These skills are characterized by higher than ordinary risk. Consequently they should be reserved for the more advanced tumblers in cheerleading and taught only by professionals competently trained in tumbling.

1. **Back Handspring:** From a standing position, a backward jump in an arched position to the hands (passing through a handstand) followed by a quick snap-down of the legs finishing in a standing position.

   Spotting: Caution must be used by beginning instructors and performers. The instructor must be strong enough to completely support the performer's body weight in his/her arms, while the performer should be strong enough to press from a headstand to a handstand.

   With one arm around the lower back of the cheerleader, the spotter provides a strong lifting support as the cheerleader jumps backward onto his/her hands. During this time, the spotter's other hand is placed on the back of the performer's leg to assist the performer through the handstand support phase. (Refer to Figure 6.2.)

Constant care must be taken to keep the cheerleader from landing too hard in the hand support phase. The use of two (2) spotters or a hand-held belt on the first several attempts is recommended. And finally, the spotter should keep his/her face extended backward during the arm throw phase to avoid being hit.

2. **Back Handspring Series:** Two or more Backward Handsprings in succession.

   Spotting: The spotter must be able to move in quickly in order to provide assistance on each successive handspring. Not attaining an upright sitting position after each successive handspring is a common tendency during the initial learning stages. When this happens, each successive handspring will become more incorrect and potentially more hazardous than the previous. Consequently the spotter must be prepared to assist the performer in attaining the upright sitting position by employing the same techniques as for the standing handspring, only now it must be done in a rapid sequential fashion.

3. **Round-Off Back Handspring:** The execution of a round-off and a back handspring (flip- flop) as a continuous series. **(This combination should not be attempted until both the round-off and the standing back handspring have been mastered.)**

   Spotting: As the feet approach the mat on the snap-down phase of the round-off, the spotter's arm moves quickly onto the back of the performer to assist in the lift and rotation of the back handspring. (This combination should be reserved for experienced spotters and cheerleaders. Because this is the first tumbling combination requiring a transition from forward to backward motion, it is advisable to use a hand-held belt during the initial learning phases.)

4. **Round-Off Back Handspring Series: This is a series of back handsprings from a round-off and should be attempted only after the performer can properly execute a round-off and one handspring without spotting assistance.** To help insure safety, the performer should always be able to attain an upright sitting position between each successive handspring.

   Spotting: The same as for the back handspring series.

ELITE SKILLS

5. **Tucked Backward Somersault (Standing):** This skill is performed from a standing position. The performer jumps upward while vigorously throwing his/her arms, head and trunk in a backward direction, followed by a quick tuck of the knees and hips, and then landing again in a standing position. (This skill is for advanced students and should not be attempted until a standing handspring has been adequately mastered.)

   Spotting: The spotter places one arm around the waist of the performer to assist in the "lifting" phase of the skill. The hand of the free arm is placed on the performer's upper leg to assist in the rotation of the somersault. Additional care should be afforded the performer during the landing phase of the somersault (i.e., to prevent under and/or over rotation).

   It is strongly recommended that two spotters using a hand-held spotting belt be employed during the initial learning phases. In addition, the use of a landing mat is recommended as an added safety measure.

6. Round-Off Back Handspring Tucked Backward Somersault: The cheerleader must first learn how to rebound effectively from the back handspring series. Once the performer is quick to rebound (punch), she/he is ready to learn the backward somersault out of the back handspring series. **(This tumbling sequence should not be attempted until the performer has adequately mastered the round-off-back handspring series and the tucked backward somersault.)**

   Spotting: An experienced spotter capable of moving quickly with the performer while anticipating the problems typical to learning this skill sequence is required (i.e., throwing the somersault too far in a backward direction instead of an upward direction as well as under and/or over rotated landings). Again, two (2) spotters and/or a hand-held belt, as well as a landing mat, are recommended for this skill sequence.

7. **Round-Off Back Handspring Layout Backward Somersault:** This sequence is performed with the backward somersault being executed in the layout (extended body) position. Because this requires additional rotation in the somersault phase, there is a more vigorous arm/trunk throw in the back-upward direction. The body should remain extended throughout the somersault phase. **This tumbling sequence should not be attempted until the performer has adequately mastered the round-off handspring tucked backward somersault (i.e., the somersault should be at least shoulder height off the mat).**

   Spotting: Because a layout position rotates through the air more slowly than a tucked position, the performer will need greater amounts of both lift and rotation. Consequently the spotter places one hand on the performer's back to assist with "lift" during the take-off phase. Once airborne, the spotter supports the performer's abdomen to minimize under rotation and to lessen the impact of the landing. **Under-rotation is the common problem during the initial learning of layouts.**

8. **Round-Off Back Handspring Full Twisting Layout:** A full 360 degree twist is achieved during the layout backward somersault phase. **This tumbling sequence should not be attempted until the performer has**

adequately mastered the round-off handspring layout backward somersault (i.e., the somersault should be at least shoulder-height off the mat with a straight body shape).

Spotting: In the initial learning stages, the actual twist should be performed late in the somersault phase. This will help insure that the performer develops adequate somersault rotation before initiating the full twist.

Landing so as to place undue lateral stress and/or strain on the knees is a potential safety concern and must be avoided as much as possible. Consequently, the spotter should be capable of sustaining the bulk of the performer's weight during the actual full twist phase.

As the performer becomes more comfortable with the twisting action, the initiation of the twist can occur earlier in the somersault phase. Ideally, the full twist should be initiated prior to becoming inverted.

9. **Forward Somersault:** This skill consists of rotating the body in a forward direction a full 360 degrees in the air. (**Caution! This skill can be very dangerous because it involves a "blind" landing onto the mat. Consequently the margin for error is quite small.**)

   A controlled run, hurdle and a "two-legged punch" from the mat are recommended to initiate the actual somersault. A vigorous punching action of the legs, a simultaneous upward throw with the arms, head and trunk, followed by a quick tucking action of the entire body allows the performer to initiate adequate forward rotation.

   Although there are currently three styles of arm-lift being utilized: 1) over-arm lift; 2) under- arm lift; and 3) Russian lift, **the over-arm lift is probably the most popular among cheerleaders and is the easiest to spot effectively.** With this style, the arms begin over the head and reach out and then down as the performer punches the mat. The body "tucks-up" shortly after take-off while the hands grasp the knees to facilitate the speed of the somersault. Upon nearing completion of the somersault, the performer's body begins to extend (open up) in preparation for landing.

   Spotting: When spotting (over-arm lift) forward somersault (or a forward somersault out of a handspring), the spotter must coordinate his/her position with the takeoff location of the tumbler. Upon takeoff, place your hand nearest the tumbler just above the waist. The cheerleader will essentially rotate around this arm during the front somersault. After takeoff, place your opposite hand on the back of the athlete and use this hand to guide the performer to the ground. It is important that, if needed, you continue the spot throughout a safe landing as it's easy for the tumbler to under or overrate the landing.

   Both performer and spotter must be keenly aware that the forward somersault requires many successful trials with a spot before the performer is ready to attempt this skill unassisted. In addition, the use of an appropriate landing mat is highly recommended.

ADDITIONAL SAFETY CONCERNS REGARDING TWISTING SOMERSAULTS

No cheerleader should attempt a twisting somersault until he or she can complete a layout with adequate height and with a near perfectly straight body (or with a very slight hollow position). The term hollow position means without arching and or piking during the somersault and without piking down in order to make it successfully to their feet.

For example, if the tumbler arches significantly off the floor, and maintains that arch throughout the flip until piking hard at the end of the somersault to make it to their feet, they **SHOULD NOT BE ATTEMPTING ANY TWISTING.** Twisting in a piked or arched body shape is very inefficient if not impossible. Attempting to do so will result in an incomplete twist prior to landing with an increased potential for injury, oftentimes severe. Conversely, if the athlete has followed the proper progressions and has properly mastered the layout, learning a full twist or a double full twist will be relatively easy. **Spending more time on your layout will reduce the time it takes to learn the full significantly.**

EFFECTIVE SPOTTING REQUIRES CONTINUOUS HANDS-ON PRACTICE

Most of what you just read is meaningless and worthless unless you do the most important thing in spotting, i.e. continually practice! In fact, there is no article, book or video you can watch or read that will make you an effective spotter without actual hands-on practice. Practical experience in regards to spotting is probably more important than in any other aspect of coaching.

Here are three important considerations on productive techniques to be an effective spotter:

1. **Practice with a spotter who is already proficient at what you are trying to learn.** These professionals have many suggestions and techniques that can make it easier and safer for you to spot. Also, not every tumbler is the same and seasoned coaches who have spotted many different types of athletes can help you to navigate through many different scenarios;

2. **Start by spotting performers who can already do the skill.** There are other aspects to consider when spotting in addition to getting your hand in the right spot to help the tumbler. For example, practicing to move laterally next to the cheerleader can help you learn how to find that position you need to be in for the spot

without actually having to spot. Visually, look where to place your hand, knowing that this athlete is not relying on you to complete the skill. Then by actually spotting this already proficient performer you enjoy the opportunity to see how it feels to spot them correctly. However keep in mind that when moving from someone who can already do the skill to someone who is just learning, the situation can change significantly, but this simulation technique does help a perspective spotter prepare more effectively; and

3. **Practice hands-on spotting on a regular and continuous basis.** Spotting is as much a skill as tumbling itself and like tumbling, it requires continual practice to maintain proficiency.

Tumbling can be a fun, exciting and safe part of every cheerleading program. With proper spotting, systematic progressions and appropriate skill selection, the beginning cheerleader can learn and perform safely a variety of tumbling skills. In addition to the above mentioned safety recommendations, refer to the following Safety Guidelines for Tumbling.

REFERENCES

1. George, G.S. (1988). Spotting—A sacred trust, U.S.G.F. Safety Update, 3 (1), 12.

2. Mitchell, R. and Longdon, P. (1990). Spotting and gymnastics safety. In G.S. George's (Ed.) USGF Gymnastics Safety Manual (Chapter VI), Indianapolis, IN: USGF Publications.

3. Feldman, K. (2009) Gymnastics Risk Management – Safety Handbook (Chapter 13), Indianapolis, IN: USA Gymnastics, Inc.

SAFETY GUIDELINES FOR TUMBLING

1. **Make sure that the tumbling area is sufficient in space and free of obstructions and that the tumbling surface is smooth, level, clean, and dry.** Appropriate matting should always be used whenever tumbling on any hard surface. Avoid advanced tumbling directly onto wood, concrete, or artificial turf as well as on wet and/or slick grassy areas.

2. **Develop a pre-established "traffic flow" plan that ensures safe participation.** This includes constant vigilance on the part of the supervisor to minimize the risk of cheerleaders colliding with one another in the course of the tumbling activity.

3. **Performers should warm-up properly before engaging in the actual tumbling activity.** Stop training whenever a performer appears to be injured or shows any sign of undue fatigue.

4. **Always follow a well-planned program of skill progressions.** Safe programming requires that tumbling skills be learned in a progression from simple to the more complex. Allow adequate training time at each level of development.

5. **Competent spotting should be provided** according to the need and ability of each participant as well as to the particular requirements of the maneuver being performed.

6. **Be sure that participants have demonstrated proficiency in executing proper landing techniques, including protective measures specific to uncontrolled landings and/or falls.**

7. **Proper attire is essential to safe tumbling practices.** Avoid tumbling in clothing that is either restrictive or too loose. The wearing of excessive jewelry should be prohibited. Never chew gum when participating in any cheerleading activity.

8. **Any tumbling skill involving inversion (somersaulting) of the body is considered to be "higher than ordinary risk."** Therefore, exercise extreme caution, use appropriate progressions and provide competent spotting when teaching **any somersaulting skill, particularly those in the forward direction.**

9. **The use of trampolines, mini-trampolines and/or other projectile devices are not recommended for any cheerleading performance activity. They may be used as training devices under proper supervision.**

Spotting in Partner Stunts and Pyramids

By Scott Elliott & Leroy McCullough

Every year a handful of new partner stunts and pyramids are developed and, as cheerleaders find more creative ways to demonstrate their acrobatic skills; therefore, the advisor/coach has the responsibility to ensure that effective spotting techniques are being employed. Even with new changes, **the primary purposes of spotting remain the same: (1) to enhance the safety and well-being of the cheerleading participants; and (2) to serve as a helpful teaching technique in the learning of new skills.**

As these new trends emerge, spotting continues to be an integral part of skill learning during practice and performances of stunts and pyramids. Spotting requires the use of the cheerleaders as actual spotters in addition of the teacher and advisor or coach. For these reasons, **it is particularly important that participants be systematically taught how, when, where and why to spot one another for each specific maneuver.**

Probably the most difficult and time consuming task one will encounter in setting up a safety program is teaching the cheerleaders to become good spotters (i.e., how to spot one another). Advisors/coaches must also have a well-planned activity program that incorporates reasonable safety procedures as a central theme. Being present for every training and performance session is a must but it is not enough. Supervisors should exercise constant vigilance at all training and performance sessions to ensure that pre-established safety procedures are being carefully followed.

Effective spotting requires the development of instincts that are not innate. For example, there is nothing "natural" about someone stepping under a 100 pound object that is falling. The instinctive reaction would probably be to move out of the way. However, the reaction of a properly trained spotter would be to move in quickly and catch the performer. Have you ever experienced a surge of energy to jump and run to a falling stunt from 50 feet away? The only way this kind of instinctual reaction can be adequately developed is to allow cheerleaders sufficient time and practice in spotting, starting from the most simple and progressing to the more complex situations.

The best experiences that give cheerleaders the appropriate "feel" for effective spotting is to introduce them to "hands-on" spotting of very basic skills. "Hands-on" essentially consists of the spotter being in constant contact with the cheerleader throughout the duration of the maneuver. For example, a spotter standing directly behind a performer grasping his/her waist can assist the performer in the execution of a series of vertical jumps. After spotting a number of these jumps, the novice spotter will begin to "feel" effective techniques as opposed to ineffective techniques.

SPOTTING DRILLS

As with any skill, repetition of good technique is imperative in developing a mastery of spotting. Spotting drills should be a regular part of the preseason practice schedule, and refresher sessions should be included during the regular season and any time a new skill is being learned.

The first drill should start with the performer standing on the ground with feet together and arms extended overhead. He/she should keep his/her body in a rigid position during the drill. The spotter will face the performer from the side and spot using the legs until the shoulders of the spotter are level with the mid-torso of the performer. Keeping the back upright, the spotter should wrap one arm around the front of the performer at the abdomen. The other arm should wrap behind the performer's thighs. Squeezing the body, the spotter should lift the performer using the muscles of the legs, not the back.

Once a spotter has mastered this wrapping technique on the ground, the performer moves incrementally higher, (i.e., stepping off onto a mat from a sturdy bench, table or bleachers), until the spotter is "instinctively" catching the performer from the height of the stunt to be spotted. It is important that attention be paid to the performer's landing techniques as well as the spotter's catching techniques. The performer should not progress to a higher level drill until the spotting and landing techniques have been adequately mastered at the previous level.

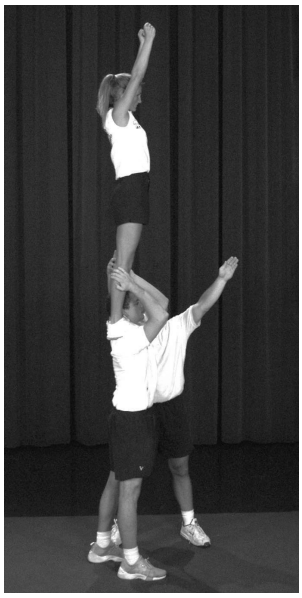
The coach's role in this drill is to instill the **three key aspects** of effective spotting for partner stunts: (1) standing close to the stunt; (2) touching throughout the duration of the stunt; and (3) catching the performer as high in the air as is possible.

CATCHING

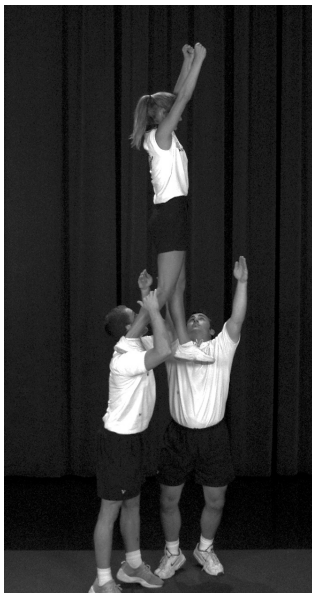
The term "catching" refers to assisting (spotting) a person who is dismounting from a partner stunt or pyramid. Essentially, there are two fundamental techniques:

1. **Bear Hug -** As seen in Figure 6.4, the spotter stands to the side and slightly in front of the performer who is about to perform a dismount from a shoulder stand position. Notice that the spotter's arms are reaching up toward (and if possible touching) the performer and that constant visual contact is being maintained. As the performer initiates the dismount phase, the spotter makes physical contact with the performer above his head by placing the outside arm and shoulder in front of the performer and his other arm and shoulder to the side and behind the performer. Notice that the spotter's head is positioned slightly behind the performer to minimize the possibility of head contact.

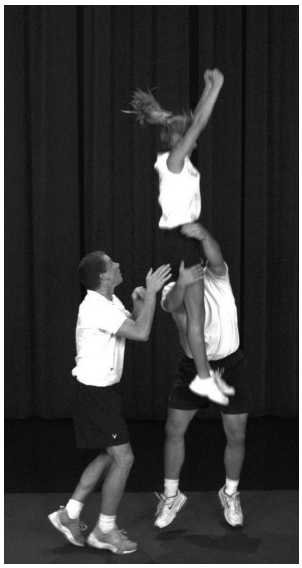
The spotter's arms literally wrap around the performer (like a bear hug) and provide an upward lifting force to help minimize the impact of the landing. Throughout the entire dismount phase, the performer's arms are maintained well above his/her head in order to minimize the possibility of hitting the catcher's (spotter's) head.



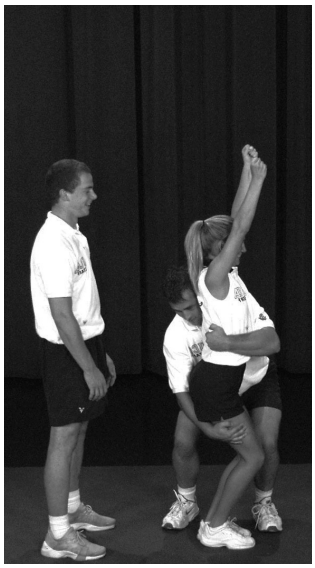
(a)



(b)

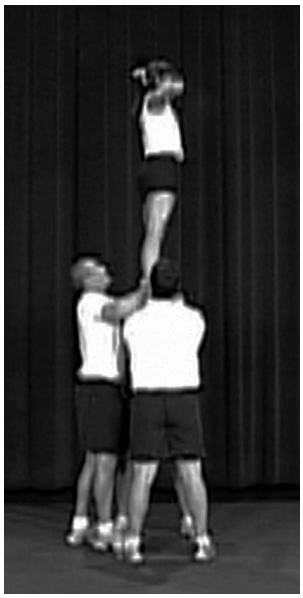


(c)

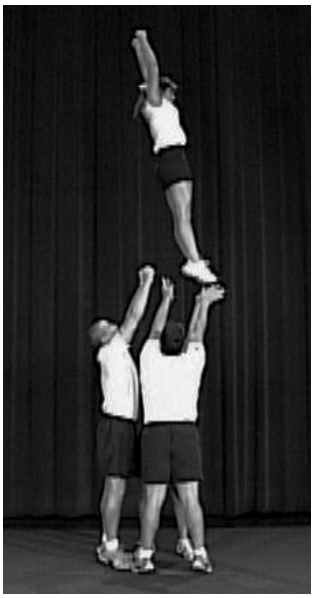


(d)

Figure 6.4 Bear hug catch.



(a)



(b)



(c)



(d)

Figure 6.5 Cradle catch.

2. **Cradles -** Most cradles require two catchers and a spotter (i.e., one catcher on each side of and one spotter behind the person dismounting, in order to support his/her shoulders and head). The side spotters face each other with their arms reaching upward in anticipation of the oncoming spot. As the performer dismounts by assuming a "pike" position, the side spotters place one arm behind his/her back and the other arm under his/her hips. (See Figure 6.5.) **The base/side spotters should be very close to each other and the actual catch should be initiated from above their heads.** The spotter in the back should be positioned almost directly beneath the performer with arms reaching upward. As the cheerleader "cradles," the spotter in the back places his/her arms underneath the performer's shoulders (under each arm).

Before actually dismounting, the top person should always visually check to be certain that the spotters are ready and in the proper position. In addition, the top person should cradle with arms held in a "T" position as shown. This helps to insure that the spotter in the back can readily "scoop" underneath his/her shoulders. They should also wrap the bases' shoulders as they are being caught. Notice also that the top person's total body is in an opened-pike shape with the head and trunk in a relatively upright position.

When executing a cradle, the top person should never lean backward with the shoulders because this can result in serious, catastrophic injury, or even death.

In mastering spotting drills above, each participant should become comfortable in spotting at least the more basic maneuvers for each of the squad members various body shapes and sizes.

ASSESSING SPOTTING ABILITY

Coaches should exercise particular caution when determining who is capable of spotting whom. As a general guideline, it is better to have larger, stronger individuals spot their smaller counterparts. That is not to say that a smaller cheerleader could not spot effectively. Sometimes that smaller individual can react faster and travel farther than others. Be that as it may, coaches must keep a close vigilance on those individuals as they master spotting skills.

Just as important as the size of the spotter is the strength of that individual. As in any strength maneuver, bigger does not always mean better. It is still important to be aware of and use the proper techniques when spotting.

In most cases, an effective spotter will have the strength to spot effectively at first. The endurance level of that individual at the end of practice or game situation should be considered. Endurance can only be achieved by employing a step-by-step conditioning program.

In many elite level stunts, an additional sense of balance, height, perception and direction is required for the top person. For example, in a stunt which involves twisting and flipping, an error could result in a more out of control fall. In these types of skills, a larger and stronger person (adequately trained) should be the spotter of choice. Selecting a relatively small person to serve as a spotter for such a skill decreases the likely effectiveness of the spot and, as such, increases the potential risk.

With coed squads, strength of spotters play an even more significant role in terms of safety. It should be remembered that, in general, male cheerleaders will be able to toss the female cheerleaders higher and further in the air.

Remember, coaches/advisors have a legal duty to provide a certain standard of care when supervising all aspects of the cheer program, and this most certainly includes providing properly trained spotters who employ appropriate spotting techniques that have been learned in the proper progressions. As these spotting techniques are mastered by each cheerleader, they can then be allowed to spot based on their demonstrated ability to spot adequately for the given partner stunt and/or pyramid.

SAFETY GUIDELINES FOR SPOTTING IN PARTNER STUNTS AND PYRAMIDS

1. **Always remember that protection of the performer's head, neck and back is the prime safety consideration.**
2. To the extent possible, the spotter(s) should be in constant contact with the person being spotted and in a position to break a potential fall and/or catch the performer at any time.
3. The spotter(s) should stay directly next to the person being spotted. It is easier and more natural to reach up and catch the performer when the spotter is already in the appropriate position and doesn't have to move in.
4. "Hands-up" – If the nature of the skill precludes touching the performer initially, the spotter should stand as close to the base as is appropriate, reach up as high as possible toward the performer, and maintain constant visual contact.
5. The spotter(s) should attempt to catch the performer as soon as is mechanically possible. This will afford them a greater distance through which to apply their stopping force and result in a more effective spot.
6. Effective spotting requires an aggressive "hands-on" approach. Do not hesitate to grasp the performer quite firmly.
7. During the actual act of spotting, spotters should help absorb the performer's falling force by flexing at the ankle, knee and hip joints.
8. Spotters should learn to spot the most basic partner stunts and pyramids first.
9. Spotters should practice spotting lower height skills first to ensure consistent, effective spotting before moving to progressively higher skills.
10. Make every attempt to anticipate the spot (i.e. that a twisting skill is more likely to fail in the direction of the twist.)

Performer Readiness

CHAPTER 7

READINESS

Physical Readiness

By Dr. Paul Morin, M.D. & Kim Edward LeBlanc, M.D.,Ph.D

Regardless of the sport or physical activity pursuit, performance and safety will be greatly enhanced when one is physically ready or, conversely, greatly impaired by poor preparation. Skills may be taught, practiced, and learned but without adequate physical preparation for such endeavors, participant safety will be sorely compromised.

The major objective of physical training is to stimulate structural and functional changes within the body that improve the performance of specific tasks, in this case, cheerleading. However, the desired adaptations will not occur when the athlete fails to follow a specific regimen. Strict adherence to a carefully planned program is necessary to affect these positive changes and ensure the body's ability to perform at the desired level. These programs should be mindful of the frequency, duration and intensity of training sessions. It is important to allow appropriate rest periods during training sessions and during the competitive season. Injury prevention is an important product of physical readiness and depends on the development of basic core strength, flexibility, general conditioning and endurance.

Coaches/advisors should be well aware of each participant's medical history. **A proper pre-participation examination should be performed by a physician** and more often if, for example, there are medical problems such as asthma or seizure disorder. This is the opportune time to discuss any medical problems or concerns with the physician. In doing so, potential problems can be addressed early allowing injuries to be avoided and exacerbation of pre-existing injuries or exacerbation of medical issues. Many athletes tend to minimize or hide their illnesses for fear of being disqualified from practice or competition. With the current state of medical knowledge and treatment, most athletes will be allowed to participate despite many medical problems. However, these medical problems as well as present and past injuries need to be identified and addressed appropriately. Medical personnel and coaching staff need to be aware of such medical conditions and injuries so they can properly plan for potential medical emergencies. **Failing to inform medical personnel of a potential problem is incurring unnecessary risk that may result in dire consequences.** All of these problems should be well documented and recorded. In addition, **all appropriate consents should be obtained to be certain that all medico-legal aspects of sports participation are covered.**

Specificity principle

Exercise training must be "sport specific". Adaptations that occur should be in response to the specific demand imposed on the metabolic and physiological systems of the body. In other words, training to be a runner will not allow you to become a good swimmer.

Therefore, to improve one's ability to perform as a cheerleader, the training that is devised must be specific to the types of maneuvers that will occur during the cheerleading activity. To bring about a training response, the specific exercise must demand more from the muscle than would normally occur with the usual daily activity. Specific exercise overload will bolster the physiological adaptive response and bring about the desired training response. Applying the specific overload requires attention to detail to avoid injury. **Careful attention should be placed on the training frequency, intensity, and duration while focusing on the specific exercise activity.**

Warm Up

All athletes should avoid the sudden initiation of exercise. This not only stresses the cardiovascular system, it places great demands on muscles, tendons, and ligaments. A simple rule of thumb to remember is that "a warm rubber band stretches much better than a cold one." Properly warming-up will allow the muscles to contract and relax more efficiently while markedly decreasing the chances of muscle or tendon injuries. **Therefore, prior to beginning any exercise routine, including stretching, the muscles should be "warmed up."** This would mean perhaps jogging about 400 meters, running in place, skipping rope, or low impact aerobics. This will allow an increase in blood flow to nearly all muscles, but particularly the muscles of the legs.

Following this warm-up, specific stretching exercises should be performed to all of the muscle groups that will be involved in the activity. These stretches should occur after proper instruction by an informed coach or athletic trainer. All of these stretches should be held for at least 45 seconds but the ideal stretch occurs when holding them for 1-2 minutes. These stretches should not be painful. They should be held at a level that gently and comfortably takes the muscle to the full extent of its range of motion. Even injured muscles may be stretched but only to the point of very minimal discomfort. Physical activity should be limited in nature as it relates to an injured muscle.

All of these stretches are critically important to virtually any athletic endeavor. As muscles become stronger, the muscles enlarge (hypertrophy) which results in a strong pull on the tendon and their attachments. Improper stretching may damage the muscle and/or tendon. It is imperative that stretches are held firmly and still.

There is no place for a "bouncing" stretch. Research and experience have shown many times that these types of stretch make the muscle more susceptible to strains and pulls during the stretching exercise. Therefore, **the best stretch is simply one that takes the muscle to its entire length and then is held for 1-2 minutes as mentioned above.**

Cardio respiratory endurance

Once these preliminary warm-up and stretches have been performed, attention may next be focused on improving cardio respiratory endurance. Training sessions should allow for improving the cardiopulmonary system. This should not be hampered by performing too many exercises too often thereby fatiguing the body while unnecessarily risking breakdown.

Positive adaptations do not require exhaustive exercise. In fact, quite the contrary is true. Repeatedly working to exhaustion will tire both the body and mind of the athlete. The human body will respond nicely to moderate aerobic exercise for increasing endurance. However, this exercise must be performed regularly (at least 3-5 times per week) while maintaining an increased heart rate at 50 – 85% of maximum (calculated as 220 – age). This may be accomplished by exercise that uses large muscle groups in a sustained fashion of some sort, such as walking, running, cycling and swimming

For overall cardiovascular health, the American Heart Association and the American College of Sports Medicine both recommend at least 30 minutes of moderate-intensity aerobic activity at least 5 days per week for a total of 150 minutes, or least 25 minutes of vigorous aerobic activity at least 3 days per week for a total of 75 minutes, or a combination of moderate and vigorous intensity aerobic activity. They also suggest moderate-to-high intensity muscle-strengthening activity at least 2 days per week for additional health benefits.

Improvements in fitness may be seen as quickly as the first week of training. These efforts are very rewarding and must be encouraged. Dividends will be realized during the days of competition when those with proper endurance will still be able to perform at a high level of activity while others will fatigue and falter.

Strength training

The sport of cheerleading is in the rather unique position of being an activity that requires strength, power and endurance. Consequently, these athletes not only require cardio respiratory endurance, they must focus on anaerobic activity as well. These are the activities that occur in short bursts, lasting only a few seconds, virtually without oxygen.

The American College of Sports Medicine 2009 Position Stand[1] on resistance training recommends training programs follow the sequence of large before small muscle group exercises, multiple-joint exercises before single-joint exercises, and higher-intensity before lower-intensity exercises. It is suggested that novice individuals (untrained in strength training) train 2-3 days per week with a repetition range of 8-12 repetition maximum (RM), while intermediate (6 months of consistent RT

experience) and advanced individuals train 3-4 days/week and 4-5 days/week respectively and use a wider loading range from 1 to 12 RM in a periodized fashion with eventual emphasis on heavy loading (1-6 RM) Between sets the athletes should rest 3 to 5 min. Increasing load by 2-15% should only occur when the athlete can easily perform 1-2 repetitions above the established repetition maximum.

Progression in power training entails two general loading strategies: 1) strength training and 2) use of light loads (0-60% of 1 RM for lower body exercises; 30-60% of 1 RM for upper body exercises) performed at a fast contraction velocity with 3-5 min of rest between sets for multiple sets per exercise (three to five sets). It is also recommended that emphasis be placed on multiple-joint exercises especially those involving the total body. For local muscular endurance training, it is recommended that light to moderate loads (40-60% of 1 RM) be performed for high repetitions (>15) using short rest periods (<90 s).

Overtraining

Every year, up to 20% of athletes, regardless of what sport, will experience "staleness" or overtraining. It usually has a gradual, almost hidden, onset. At times, this is so subtle that neither the athlete nor coach realizes what is happening.

Overtraining occurs as a result of many factors, lack of sleep, too much exercise, improper nutrition, increasing activities too soon, or some combination of these factors. Consequently, coaches/advisors would be well advised to carefully monitor the behavior characteristics of their cheerleaders. Symptoms to watch for include the following:

- High fatigue ratings
- Persistently poor performance, particularly if unexplained
- Disturbed mood states, particularly if out of character for that athlete
- Prolonged recovery from routine training sessions or events
- Persistent muscle soreness and/or stiffness, overuse injuries
- Resting pulse more than 10 beats above normal
- Loss of appetite, weight loss, sleep disturbances

Overtraining may be easily corrected by remembering that rest is important. Even the strongest athlete needs adequate rest. The recommended corrective protocol would be to simply allow the cheerleader to take 2-7 days off with adequate nutrition and hydration.

The key to overtraining is prevention. Don't push the athlete that has the above symptoms, be wary and cast a watchful eye.

Conclusions

Cheerleaders are athletes that require a high rate of performance. Coaches, advisors and administrators should always be mindful that the sport of cheerleading has evolved over the last decade and cheerleaders are no different than the athletes on the playing field. These athletes require significant strength, power, flexibility and endurance to safely perform the skills that make up their complex routines.

Physical readiness encompasses proper nutrition, appropriate rest and a precise goal-oriented stepwise training plan that concentrates on flexibility, strength, power and endurance training. As with all sports, success is predicated by the willingness to make the tedious task of training fun and exciting. The final event is but a small visible part of the overall training phase.

REFERENCES

American College of Sports Medicine. Position Stand on the recommended quantity and quality of exercise for developing and maintaining cardio respiratory and muscular fitness, and flexibility in healthy adults. *Med Sci Sports Exerc.* 1998; 30:975.

Kuipers H. Training and overtraining: an introduction. *Med Sci Sports Exerc.* 1998;30:1137.

O'Conner PJ. Overtraining and staleness. In: Morgan WP, ed. Physical activity and mental health. Washington DC: Taylor and Francis, 1997.

Medicine & Science in Sports & Exercise: July 2011 - Volume 43 - Issue 7 - pp 1334-1359 doi: 10.1249/MSS.0b013e318213fefb, SPECIAL COMMUNICATIONS: Position Stand. Quantity and Quality of Exercise for Developing and Maintaining Cardio respiratory, Musculoskeletal, and Neuromotor Fitness in Apparently Healthy Adults: Guidance for Prescribing Exercise.

Medicine & Science in Sports & Exercise: March 2009 - Volume 41 - Issue 3 - pp 687-708 doi: 10.1249/MSS.0b013e3181915670 SPECIAL COMMUNICATIONS: Position Stand. Progression Models in Resistance Training for Healthy Adults.

CHECKLIST FOR PHYSICAL READINESS

1. Every decision regarding training and performance should pass a series of questions before implementation. The following criteria should be addressed before and during any training and performance session with cheerleaders.
2. Is the athlete strong enough, powerful enough and have the necessary muscular endurance to perform the skill/s in question? Can he or she produce the necessary force?
3. Is there a more risky skill being performed at the end of an intense skill sequence when fatigue will be greater?
4. Is the athlete's skill performance stable enough to add skills before and/or after the riskier skill?
5. Is the athlete fresh enough to perform the skill safely? (Fatigue can come from other sources besides just cheer and dance performances.)
6. Are the more risky skills being practiced early in the training session and before the more fatigue-inducing activities?
7. Does the athlete clearly understand the skill being practiced?
8. Does the athlete have the necessary ability to practice and perform the skill safely? Has the athlete successfully performed similar skills in the past?
9. If learning and performance difficulties are encountered, can the skill be broken down into smaller steps?
10. Is the environment conducive to safe and easy performance of the skill? Is there adequate spotting, matting, lighting, floor or ground friction, etc.?

Psychological Readiness

By Christine Habeeb

What percentage of cheerleading do you believe is psychological? Many argue that cheerleading includes a mental feature but fail to purposefully set about to train it. Many factors, as discussed in other sections of this manual, contribute to optimal skill learning, development, and performance. This section discusses psychological factors that are often ignored. Psychological factors not only relate to performance but also directly and indirectly impact participant safety. Distributing knowledge to coaches, administrators, and participants about how to enhance one's psychological state promotes the goal of building stronger and safer athletes.

Considering the use and application of sport psychology in cheerleading requires an overview of (1) psychological readiness, (2) basic psychological skills and their applications, (3) a summary of mental blocks and fear, and (4) strategies to foster confidence when managing fear. Much of this material is based upon a model of triadic causal influences that occurs among thoughts, emotions, and behaviors (performance in this context).

As illustrated in Figure 7.1, thoughts influence emotions and how one performs while emotions also influence how one thinks and performs. Equally important, performance plays a role in subsequent emotions and thoughts. As a coach, it is important to think about how implementing strategies to improve any aspect, physical or mental, may influence each piece of this triangle.

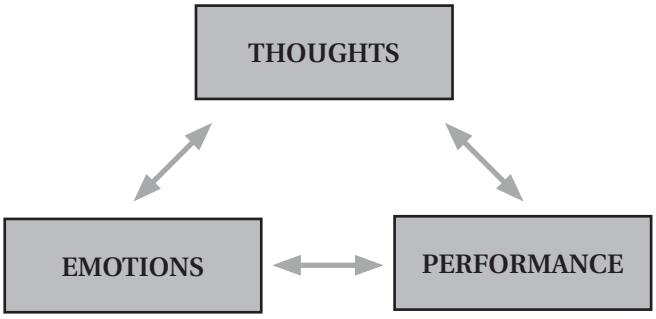


Figure 7.1.
A model of triadic causal influences between thoughts, emotions, and performance.

What is Psychological Readiness? The term psychological readiness refers to being mentally prepared for performance. The goal of psychologically preparing athletes should be to 1) increase practice quality; 2) improve skill learning; and 3) reduce performance anxiety. Most importantly, **psychological readiness is a feature of participant safety.** The acrobatic components of cheerleading create many potential risks for participants in both indi

vidual and group elements. Psychological readiness can affect performance from day to day. Within cheerleading, a small difference in performance may have large and detrimental outcomes such as injury. It is important to consider the advantage that psychological readiness provides in enhancing performance safety.

Coaches and administrators who are aware of their athletes' psychological readiness (in addition to proper physical training) are likely to find a safer environment via increased participant attentiveness, awareness, and confidence. Two important points should first be made about psychological readiness. First, there is no formula to becoming psychologically ready. It is important, therefore, to consistently include aspects into training to avoid slumps, mental blocks, poor performances, and injury. **Just as one should expect physical training to take some time, the same effort and time is required for psychological skills training to have an observable effect.** Second, many hold a **"you have it or you do not"** philosophy when it comes to training mental skills. This is far from true. **Psychological readiness is malleable and trainable.** Incorporating discussions, drills, and training for psychological readiness is beneficial for all members of a cheerleading team.

How to Become Psychologically Ready. Psychological readiness can be improved through psychological skills training. Psychological skills involve the deliberate use of pre-prepared thoughts and behaviors to better control self-confidence, motivation, anxiety, and attention. Psychological skills are developed through repeated practice and, when used properly in training, is believed to enhance performance by that participant. There are a variety of techniques and interventions that could be applied to any given situation depending on the participant's personal history, experience, personality, age, learning style, and motivations. In addition, the environment i.e., team level, stage of season, available resources, etc. will also impact which strategies are implemented. The coaches, administrators, and participants can use this material below as a first step towards increasing psychological readiness for members of their teams.

There are four basic psychological skills: (1) goal setting; (2) imagery; (3) relaxation/activation management; and (4) self-talk. The mastery of the basic skills leads to advanced psychological skills such as regulating anxiety and attention. The basic skills may be trained from beginners to experts and it is important to apply mental skills training accordingly. Furthermore, it is not required to train each psychological skill separately from the others nor in isolation from physical practice. Each skill is described in greater detail in upcoming sections with guidelines for application as well.

Goal Setting. Goal setting is the easiest and most common psychological skill employed by elite performers. Goals can be established for both short- and long-term periods, as well as for competition and for practice. However, the simple stating of a goal does not automatically bring the goal into fulfilment. There are additional tactics. According to research, guidelines to consider include setting goals that are *specific, individualized, moderately difficult, and focused on positive gains*. Once a participant sets a goal that he or she is motivated to work towards, the coach has two important responsibilities to facilitate achievement of this goal.

First, encourage and assist the participant with developing a goal achievement strategy. Without a planned strategy the goal is simply a wish and is likely to be ineffective for skill development. The second responsibility is to consistently give feedback and evaluate progress towards the goal. Information about current performance level provides the participant with a more realistic understanding of his or her current abilities in relation to the goal. Accurate assessments of ability are more likely to keep participants motivated to work within a more fitting and safer skill range before progressing onward.

It may be most beneficial to discuss goal setting strategies with an example and highlight the important features *(italicized)* for application to other situations. Imagine a cheerleader has been struggling with landing a standing back tuck. The coach reveals s/he needs to improve setting technique *(individualized, focused on a positive gain)*. The formal goal will be to perform standing back tucks with a fully extended set, indicated by the location of the arms during skill execution *(specific, objective goal)* and will be completed within two months (*establish an expected date of achievement)*. The coach and participant discuss several drills to add to physical training and the aspects s/he should start to focus on for correcting technique *(goal achievement strategies)*. To measure progress towards goal achievement, the coach and athlete evaluate technique at the end of each practice *(consistent evaluation of progress)* with a rating scale from 0-10 to track improvements *(make behaviors measurable)*. The athlete/cheerleader executes one standing back tuck to be video-recorded and rated for setting technique *(performance feedback)*. This number is recorded *(write down and track achievement)* and compared to previous ratings *(self-evaluation)*. In response to any positive, negative, or neutral advances, the coach and participant adjust goal strategies accordingly *(update goals and strategies when needed)*.

The appropriate use of goal-setting is an organizational tool to facilitate proper development of mental and physical performance needs. The above example provided several features of goal setting that improve goal achievement potential. The key features may be applied to individual and team goal setting. **It is important to emphasize goals that are in control of the athlete.** Often times, we are so concerned with an outcome that we forget to focus on the process to that outcome. Use goals to facilitate achieving both the appropriate process and desired outcome.

Imagery. Many participants already use imagery, especially when learning new skills or correcting technique. Imagery is the intentional recreation of an experience mentally, without physically doing the actions. Imagery is beneficial to performance because, when one uses a vivid and multi-sensory image of the correct way to execute a skill or routine, the brain interprets the image as identical to the physical execution of the same skill. Imagery is useful for learning new skills, correcting technique, preparing for competition, automatizing performance routines, and enhancing mental skills. When imagery is combined with physical practice, it can lead to greater improvements in performance compared to physical practice alone. Additionally, imagery can maintain performance levels in the absence of physical practice such as when an athlete is injured. Including imagery into practice is as simple as asking a participant to imagine the correct execution of a skill immediately before actually performing the skill. Mentally rehearsing skill execution with proper technique facilitates skill learning and development, increases confidence, and optimizes attentional control. Imagery is employed by each individual differently and there are a variety of ways to utilize this mental skill in practice and for competition preparation.

Imagery is also an excellent technique to increase safety. It provides a platform to perform and practice skills without risking physical injury. The use of video and/or demonstrations of new skills and correct technique can provide cheerleaders with a model to base their visualization before attempting a skill. Providing visual aids is highly recommended because if a cheerleader imagines the wrong technique or simply cannot create the image at all, then the performance is likely to replicate what he or she has visualized incorrectly. In addition, imagery takes practice and needs development. Practicing the re-creation of every detail of a scene is one method of improving the use of imagery for skill development.

Relaxation/Activation Management. Relaxation and activation management refers to one's ability to actively regulate and purposefully adjust to stress-related emotions and physical symptoms of these emotions. That is, if a participant is feeling highly anxious before performance, he or she may try deep breathing to relax. Or if the participant feels that his or her energy levels are too low, then he or she may attempt to elevate energy levels by listening to upbeat music. One reason controlling levels of relaxation and activation is important is **because good skill execution requires a specific amount of tension to be created in specific muscles at specific times (i.e., technique)**. When an athlete is worried, he or she will have physical consequences such as increased muscle tension. This tension, created by worry, disrupts the way muscle tension is typically implemented for skill completion. Thus, a participant can perfectly execute a routine of skills in practice over and over, with few problems, but may not be able to perform the same technique in front of an audience because of uncontrolled muscle tension generated by worry.

To minimize such problems, there are a few factors to identify. The following set of questions, as guidance, are intended to (1) increase self-awareness, (2) find indicators of losing control, and (3) determine strategies for modifying activation levels:

1. What level of activity do you practice (or perform) best in?

   Example answers: high, medium, low, very relaxed, almost jittery, very-hyped.

2. What situations, people, objects, problems, etc. cause you to become over or under activated before or during skill execution (or competition)?

   Example answers: seeing someone else get hurt, a large audience, when coach is yelling, knowing a stunt fell earlier in the routine.

3. Are there any physical symptoms/indicators that may signal to you that you are experiencing a level of activation that is not best for you?

   Example answers: I feel tension in my neck, my heart starts pounding, my breathing changes, I start yawning, I get butterflies in my stomach, I cannot feel my feet.

4. What will you do to get back to the activation level you wish to be in?

   Example answers: use imagery to imagine the skill being perfectly executed, purposely slow down my breathing, talk to my coach or teammate, visualize each movement with the music, scream to release my extra energy, jump up and down repeatedly.

By honestly answering the above questions, a participant is preparing for emotion-related changes in relaxation and activation. As a result, one is better equipped to properly control and safely respond to situations that may interfere with performance. Learning to become aware and adapt to stressful situations also minimizes risk of injury.

Self-Talk. Self-talk is the inner dialogue that occurs in our heads. Personal dialogue with oneself includes an athlete's interpretation of feelings, perceptions, and beliefs as well as self-instruction and reinforcement. What one says to him or herself is believed to have direct effect on his or her performance. Thus, becoming aware of and then deliberately controlling self-talk, before and during skills, provides a direct intervention to increasing proper skill execution, minimizing negative influential thoughts, and increasing control of behavioral actions. Self-talk occurs as spoken words or internal thoughts structured as cue words, phrases, and sentences.

According to research, effective self-talk is *positive, brief and simple, logically related to the skill involved, and*

compatible with skill sequences and timing. Most importantly, the key to managing, controlling, and changing negative thoughts into positive thoughts is that the athlete *believes* what he or she is saying to him or herself. Self-talk statements that are perceived as irrational or not true will not positively change the athlete's thinking. For example, if an athlete is scared to perform, she can repeatedly tell herself that the skill will go well. However, if she does not truly believe in this statement, then it will do nothing to facilitate her performance. Self-talk is often used to assure oneself of psychological readiness and employed as a coping strategy when a participant is unsure of his or her ability. Coaches may want to consider exploring the self-talk of an athlete that is struggling with a skill. It is important to make participants aware of how negative self-talk is likely to interfere with skill execution. Ask your athlete what he or she is telling him or herself before trying to execute the skill. Bringing awareness to these negative statements leads to a clearer understanding of why he or she may not be able to throw a skill and may help reduce frustrations that prevent clear thinking, increased attention, and optimal activation.

These basic skills are often applied by coaches and participants in cheerleading. However, improving the quality usage and development of these skills provides increased psychological readiness and, in turn, positively influences skill learning, development, and performance. When mental skills training is a regular part of practice, many positive outcomes arise. However, many coaches want to know how to help participants when they are struggling, not improving, or have lost confidence, basic skills are beneficial in these types of situations as well. The next section includes discussion of fears and mental blocks and using mental skills training as an aid to overcoming such issues.

What is a Mental Block? Mental blocks are an important issue for some athletes. Some reasons for mental blocks include increased pressure to perform new skills too soon, improper use of skill progressions, natural changes in physical build due to normal growth and development, and improper training techniques. While the term is generally overused, mental blocks describe when one cannot process thoughts or information about a skill normally and this disruption then has a potential to interfere with performance. Mental blocks may be paired with or followed by confusion, lack of action, and indecision. Mental blocks occur in participants of all ages, backgrounds, and experience levels with varying degrees of severity. Mental blocks may be caused by a previous negative event (e.g., injury) or lack of focus due to fatigue, fear, or poor previous performance.

It is important to distinguish between experiencing fear and experiencing a mental block. Many times cheerleaders who experience fear in performing a skill automatically assume it is a mental block. While the two are closely associated to one another, **a mental block is the inability to process *any* thoughts about executing the skill.** Mental blocks are an extreme case and it is important for participants to understand that fear does not mean they cannot throw a skill, it means they must put effort into increasing their confidence to throw a skill. It can be reassuring for athletes to know that fears and mental blocks, when addressed properly, are temporary and can be overpowered.

Strategies to Manage Fear and Regain Confidence. There is no quick fix or magic cure for athletes that are struggling. However, some suggestions and potential interventions are provided here as guidance. When considering strategies, the coach should first engage in communication with the struggling athlete. This will be helpful for several reasons. Open conversation (a) begins the process to accept and become aware of fears which leads to (b) discovering a strategy that fits the athlete within the situation and (c) provides support for the athlete. In addition, talking openly about fears will help (d) normalize the issue which in turn will (e) reduce additional barriers such as embarrassment when addressing fears and new skills. Coaches should also help the athlete handle the fear or mental block productively rather than creating pressure to immediately perform the skill. This may be as simple as just talking through the issues or breaking down the skill into more manageable parts. The important part is to address the situation in a non-threatening manner and prevent the development of avoidance behaviors.

Although not a guarantee, improving psychological readiness can diminish fears and mental blocks. The basic psychological skills discussed earlier will require additional attention for struggling athletes but provide real techniques for influencing positive skill execution. Two additional strategies to manage fears include increasing self-efficacy beliefs and creating/utilizing a mental routine.

Self-efficacy is a situation-specific self-confidence that differs across persons, skills, and situations. For example a cheerleader may have a very high level of self-efficacy for running tumbling, but a low level of self-efficacy for standing tumbling. The link between self-efficacy beliefs and future success has been the most consistent finding in peak performance research. Self-efficacy is often enhanced as an indirect effect of psychological skills training. In addition, athletes utilize specific sources of information that directly enhance self-efficacy. The sources include:

- Having previous successful performances related to the skill
- Observing others of similar capabilities successfully perform the skill
- Being verbally persuaded by oneself, coaches, and/or teammates

- Regulating emotional/physiological states through relaxation/activation skills
- Experiencing successful skill executions through imagery

Past performance and self-efficacy are strong predictors of future success. It is also important to realize that a lack of this evidence leads to diminished self-efficacy. Thus, a coach may purposefully utilize these sources to increase athletes' self-efficacy. Examples of such strategies include video clips of previous successful performance, videos of other teams, verbalizing positive beliefs about abilities, and implementing the basic psychological skills into training.

Another strategy to managing fear is to ask the participant to create a mental routine. That is, have him or her decide on positive things to do and say before attempting the feared skill. An example of this is to

(1) say a special cue word, (2) repeat a simple version of the technique (e.g. for a back handspring "sit, reach, snap"), and (3) imagine the skill being executed. This mental routine should ideally be carried out directly before the skill is attempted. In addition, the mental routine should be carried out for every skill attempt, at least in the first stages of skill learning or fear management. It is important to have the athlete create his or her own mental routine. The coach should guide the athlete to include important features of psychological skills training, but allow the athlete to ultimately decide what works best. Creating athlete ownership of the mental skills is most valuable for later use. It should also be evident that effort from the athlete is required to implement proper mental skills, especially for beginners. Encouragement is often needed, but as psychological skills training becomes a normal part of skill development, the process becomes more automatic.

Conclusion. Psychological skill training is about empowering athletes through control of their mental processes. The influence of one's mental state (i.e., thoughts and emotions) on behavior is a key determinant of performance safety. While there is little sport psychology research in cheerleading, research in gymnastics has provided several developments that are informative for cheerleading coaches and participants. Among the findings, mental preparation has been identified as the most common strategy to overcome fear of injury. This reflects the importance of developing psychological skills in cheerleaders as injury is always a risk of participation. In addition, a lack of psychological readiness can lead to feelings of stress and anxiety that further disrupt attention and thoughts related to skill performance, which in turn also increases the likelihood of injury.

Three final comments related to psychological readiness are worth discussing. First, when implementing skills, always keep in mind the age and experience of the athletes. Youth level and college level cheerleaders are at different stages of mental and physical development and this will ultimately determine how one should approach psychological skills training. Second, keep in mind that one's circumstances outside of cheerleading practice are intricately connected to his or her mental state within practice. Awareness of outside issues could provide valuable insights for struggling athletes. Finally, many of the skills, techniques, and strategies for fostering psychological readiness in sport are applicable to other domains of life such as personal, professional, and academic. Coaches and administrators are advised to utilize the tools to foster a participant's over-all well-being and future successes in all aspects of his or her life.

The information provided in this section is intended to increase awareness and demonstrate the underpinnings of mental states and the related performance behaviors. In addition, the information should serve as a guide for coaches in cultivating an atmosphere that promotes psychological readiness to ensure participant safety. When athletes struggle, the provided strategies may be guides to intervening positively in the mind-body relationship. As mentioned, this was not an all-inclusive review of topics, but was intended to provide a basic understanding of what psychological readiness is and how to foster positive psychological influences for a safer cheerleading environment.

REFERENCES

Chase, M. A., Magyar, M., Drake, B. M. (2005). Fear of injury in gymnastics: Self-efficacy and psychological strategies to keep on tumbling. *Journal of Sport Sciences*, 23(5), 465-475.

Cox, R. (2011). Sport psychology: Concepts and applications. New York, NY: McGraw-Hill.

Eklund, R. C., & Tenenbaum, G. (Eds.). (2014). Encyclopedia of sport and exercise psychology. (Vols. 1-2).

Thousand Oaks, CA: Sage Publications.

Hardy, J., Gammage, K., & Hall, C. (2001). A descriptive study of athlete self-talk. *The Sport Psychologist*, 15(3), 306-318.

Tenenbaum, G., & Eklund, R. C. (Eds.). (2007). Handbook of sport psychology (3rd ed.) Hoboken, NJ: Wiley.

Williams, J. M. (Ed.) (2010). Applied sport psychology: Personal growth to peak performance (6th ed., International ed.) Singapore: McGraw-Hill.

PSYCHOLOGICAL GUIDELINES FOR COACHING

1. Provide training (year round) for your cheerleaders in the psychological components of performance.
2. Stress the importance of self-control in practice and competition environments.
3. Keep as much variety in workouts as possible. Change allows attention skills to remain honed thereby decreasing chances for errors.
4. Never over-train your cheerleaders. Boredom and fatigue contribute to injuries.
5. Keep the pressure off. Have fun in both practice and competitive environments.
6. Strive to be positive in all situations. Encouragement breeds satisfaction which promotes safety.
7. Travel arrangements should be made with the participants' psychological well-being in mind.
8. Demonstrate patience, perseverance and understanding.
9. As a coach, be a model of the psychological readiness you desire in your cheerleaders.
10. Provide "emotional first-aid" when appropriate. Cheerleaders should not be left to their own psychological resources following either a successful or unsuccessful performance. Post competitive handling of cheerleaders is crucial to future, safe performances.

PSYCHOLOGICAL GUIDELINES FOR PARTICIPANTS

1. Be aware of your individual areas of concern (fears).
2. Never attempt a cheerleading stunt or tumbling maneuver for which you feel uncomfortable because of peer pressure.
3. Be sure to warm-up sufficiently before performing.
4. Follow a progression of easy to difficult in terms of learning.
5. Practice is where most injuries occur, so attentiveness is particularly crucial here.
6. Having fun does not mean "messing around." Horseplay is not wise from a safety standpoint.
7. Use power of positive self-talk.
8. Employ imagery, both visual (seeing) and kinesthetic (feeling) to practice successful performances.
9. Calculate risk wherein all safety variables are maximized prior to attempting any skill.
10. Learn about your own psychological strengths and weaknesses. Remember, you are a performer in a potentially dangerous environment. To be safe, you have maximum control of both your mind and your body.

Nutritional Strategies & Safety for Cheerleading

By Jamie M. Meeks, MS, RD, CSSD, LDN

WHY NUTRITION?

Cheerleaders of all ages try to find that "extra edge" that could help improve their strength, endurance, flexibility, recovery, and overall athletic ability. Many hours in the gym are definitely important for improving performance, but cheerleaders' full potential can be hindered without proper fueling strategies.

MACRONUTRIENTS

Macronutrients are essential nutrients that the human body needs in relatively large amounts. These are the energy/calorie providing nutrients that the body utilizes for numerous functions.

CARBOHYDRATES

It is essential for cheerleaders to understand that carbohydrates are the most important nutrient for athletic performance. They provide the energy for hard working muscles as well as fuel to the brain for focus and concentration. Adequate carbohydrate intake from the diet ensures that the body can provide the energy needed to fuel the body for intense long practices and games. Carbohydrates are stored in large quantities in the muscles and liver as well as in smaller amounts in our blood. If these carbohydrate reserves are low or become empty, the athlete will more than likely experience:

- Faster fatigue
- Decreased concentration
- Increased risk of injury and/or illness
- Decrease in overall performance

When people hear the word "carbohydrates," many of them may cringe and associate them with being "bad" or may think that "eating carbs will make me gain weight." This has to do with the recent popularity of low carbohydrate diets and the media promoting them. The only reasons that carbohydrates may "make you gain weight" are if the wrong types of carbohydrate are eaten in excess and/or at the wrong times. Therefore, proper carbohydrate intake will help cheerleaders adequately fuel and sustain exercise as well as sufficiently recover once they have completed physical activity.

TYPES OF CARBOHYDRATES

There are several types of carbohydrates that exist in many forms in countless foods and beverages. It can be confusing to understand all of these classifications, but there is a simple way to recognize which carbohydrate-containing foods and beverages are optimal for fueling.

Carbohydrates are easily classified into two categories: Simple Carbohydrates and Complex Carbohydrates.

- **Simple Carbohydrates** are made up of only one or two sugar molecules. Because of its simple structure, these types of carbohydrates are rapidly digested and therefore a quick source of energy.
- **Complex Carbohydrates** are made up of three or more sugar molecules, linked in a straight chain and/or branched formation, and generally digested slower than Simple Carbohydrates. This slow digestion time allows for a longer, more sustained source of energy.

* The common thought is that Complex Carbohydrates are better for people than Simple Carbohydrates; however, that is not always the case. As shown in the table below, not all Simple Carbohydrates are full of refined or added sugars and highly processed ingredients; many actually occur naturally in various, wholesome foods and beverages such as fruit, milk, and yogurt.

Simple Carbohydrates	Complex Carbohydrates
Fresh Fruit	100% Whole Wheat Bread, Bagels, Tortillas, Pita Bread, Crackers
Fruit Juices	White Bread, Crackers, Bagels, Tortillas, Pita Bread,
Dried Fruit	White Potatoes
Apple Sauce	Sweet Potatoes
Milk	Potato Chips
Yogurt	Brown Rice
Honey	White Rice
Table Sugar	Beans
Maple Syrup	Oats
High Fructose Corn Syrup	Breakfast Cereal
Soft Drinks/ Soda	Vegetables
Jam and Jelly	Soy Milk
Candy	Whole Wheat Pasta
Carbohydrate Boosters for Sports (Sport Drinks, GU gels, Sport Beans, Energy Chews, etc.)	White Pasta

When choosing foods and beverages, cheerleaders should try to choose those with a high nutrient density the majority of the time. Nutrient dense foods and beverages are most beneficial because they provide high amounts of nutrients in relation to the number of calories they contain. Foods such as fresh fruits and vegetables, whole grains, and low fat dairy contain a higher nutrient density compared to foods such as candy, pastries, sodas, and sugary cereals.

EXAMPLE- comparing 10 Sour Patch Kids candy vs. 20 Fresh Green Grapes. *Both are Simple Carbohydrates and both contain about 75 calories. The difference lies in the nutrient content. The grapes are more nutrient dense because they contain Vitamin A, Vitamin C, Iron, and Fiber; the candy contains none of these nutrients.*

Tips on incorporating Simple and Complex Carbohydrates into the diet to ensure optimal energy production:

Simple Carbohydrates can provide immediate energy DURING exercise and can speed up recovery IMMEDIATELY AFTER exercise since they are quickly digested and absorbed. Keep in mind that during and immediately post-exercise, the choice of carbohydrate may or may not always be of the highest nutrient density. That is why it is important for cheerleaders to experiment with different foods and products to find which ones agree with their stomach and give them the greatest boost of energy.

PROTEIN

Protein is always a hot topic in sports nutrition and tends to get a lot of hype among athletes of all shapes, sizes, and ages. It is an essential nutrient for many bodily functions such as: producing hormones; growing hair, nails, and red blood cells; and boosting the immune system. In addition, the most well-known function of protein is its role in building and repairing muscle. Many people, particularly athletes, may be under the assumption that protein is the most important macronutrient and that (amounts exceeding the athlete's needs) in the diet will translate into more muscle and strength gains. It is true that athletes require more protein than non-athletes; however, the ideal sports diet consists of nutrient dense carbohydrate foods and ample - but not excessive - protein foods as well has moderate amounts of heart healthy fats.

The human body prefers to use protein for muscle recovery, repair, and formation, not as an energy source. Protein only contributes to a very small percentage of fuel during exercise and increases as a fuel source when exercise exceeds 2-3 hours. As mentioned previously in the carbohydrate section, carbohydrates are the muscles' main energy source. High protein and/or low or reduced carbohydrate diets can leave cheerleaders' energy reserves low or depleted, reducing their ability to train at their desired intensity or duration. As a result, workouts suffer and their body may begin to break down muscle protein for energy. So, instead of building muscle, their muscle is wasted to compensate for the lack of carbohydrate available in their energy reserves.

There is no specific solution to the popular question: "How much protein do cheerleaders need per day?" The answer varies and depends on the cheerleaders' body weight and intensity of training. Protein needs can range from .5 grams of protein per pound of body weight up to 1.0 grams of protein per pound of body weight. Cheerleaders training at a moderate level for a few days a week will require protein on the lower end of this spectrum compared to athletes who are training at a more extreme intensity and longer duration for most days of the week. Protein needs for a specific athlete may shift as workouts change and sport seasons change (in-season vs. off- season).

It is important to keep in mind that very high protein intake could put a cheerleader at risk for dehydration, decreased bone density, or increased stress on the kidneys or liver (usually for people who are already have compromised kidneys or livers). Be sure to consume adequate protein, but don't overdo it… more is not always better.

TYPES OF PROTEIN

Cheerleaders should incorporate high-quality protein foods and beverages into their diets and be sure to distribute them evenly throughout the entire day. Proteins are made up of small building blocks called amino acids. Two categories of amino acids exist: Essential Amino Acids and Nonessential Amino Acids. Unlike the Nonessential Amino Acids, the human body cannot create Essential Amino Acids; therefore, the only way we can acquire these is through our diet.

Protein foods and beverages that contain an adequate proportion of all the Essential Amino Acids are referred to as Complete Proteins. These include:

• Meat	• Fish	• Seafood
• Poultry	• Milk	• Cheese
• Yogurt	• Eggs	• Soy based foods

Protein foods that lack one or more of the Essential Amino Acids in the correct proportions are referred to as Incomplete Proteins. These include:

• Grains	• Nuts	• Seeds
• Peas	• Corn	• Beans/Legumes

Both Complete and Incomplete Proteins can make up a winning sports diet. Just as nutrient-dense carbohydrate foods should be chosen, lean proteins should make up the majority of your protein food and beverage choices.

Lean Proteins - Choose Often	Higher Fat Proteins- Choose Less Often
Eggs	Full Fat Cow's Milk
Reduced Fat Cow's Milk	Full Fat Yogurt
Soy Milk	Ice Cream
Reduced Fat Greek Yogurt	Coffee Creamers
Chicken (white meat, skin off)- grilled, baked, broiled, roasted	Fried Chicken
Turkey (White meat, skin off)- grilled, baked,	
broiled, roasted	Bacon
Ground Turkey, Turkey Sausage	Sausage
Lean Beef- top round, top sirloin, or >/= 90% lean ground beef	Dark meat Chicken, skin on
Pork Loin	Dark meat Turkey, skin on
Fish (ex. Tuna, Salmon, Tilapia)- grilled, baked, broiled, roasted	Bologna
Canned Tuna and Salmon	High Fat Beef- Rib-eye, T-bone, Porterhouse, or
<90% lean ground beef	
Reduced Fat Cheeses	Fried Fish
Reduced Fat Cottage Cheese	Full Fat Cheeses and Cheese based dishes
Beans- black, kidney, pinto, navy, chickpeas, etc.	
Natural Nut Butters- peanut, almond, cashew, soy	
Nuts and Seeds- almonds, walnuts, pistachios,	
pumpkin seeds, etc.	
Soy based foods- soybeans, tofu, tempeh, soy burger patty	

PROTEIN SUPPLEMENTS

Protein supplements (and sports supplements in general) have recently become quite popular. Many athletes believe that a protein supplement is the only way and best way for receiving adequate protein for post-workout recovery and/or weight gain purposes. Even though protein supplements can be an easy method of consuming protein and meeting protein needs, most athletes are able to meet their needs solely through their diet. Protein needs are easily attained when protein foods are consumed throughout the day (4-6 nutrient-dense meals and snacks).

For example, the recommended amount of protein for post-workout recovery is 15-30 grams within the first 30-45 minutes of the cessation of exercise.

- The lower end can be met by: 8 ounces low fat chocolate milk and 2 tablespoons of peanut butter with a medium banana.
- The higher end can be met by: 8 ounces low fat chocolate milk and 6-8 thin slices of deli turkey on 2 slices of whole wheat bread.

There are several situations that protein supplements (such as protein powder) may be desired or necessary. These include but are not limited to: athletes who are unable to consume solid foods due to a medical condition; traveling athletes with limited access to high quality foods; student-athletes pressed for time due to class after workouts; vegetarians or vegans who have a hard time meeting their protein needs through plant-based protein foods; and athletes who have a hard time meeting their increased calorie or protein needs through real food.

FAT

The common belief that eating foods with fat in them will make you gain weight is a myth and only holds true when calories are consumed in excess. Whether these excess calories are from fat, protein, or carbohydrate containing foods, body fat weight gain is a result of consistent overconsumption of calories that the body needs or burns. Dietary fat is an important component in an athlete's diet and should not be totally avoided. In fact, fat plays numerous essential bodily functions including: protection for the body's vital internal organs; insulation for the body by preventing the loss of body heat; production of regulatory hormones; provision of the makeup of the brain structure, cell membranes, and protective covering for nerves; and many more.

From an athletic standpoint, fat (together with carbohydrate) acts as a major fuel source for athletes. The body turns to fat for energy for moderately intense sports that are long in duration. As opposed to short, high intensity sports such as field events, sprinting, and power lifting, which use mostly carbohydrate for a quick source of energy, sports such as cross country running/skiing, distance swimming, rowing, and long-lasting team sport practices/games rely mostly on fat for fuel. Cheerleading uses a combination of carbohydrates and fats for energy because the nature of the sport consists of both short/high intensity activities (i.e. tumbling passes, stunt and jump sequences) and long/ endurance-based activities (i.e. competition routines, cheering for team sport games, practice).

TYPES OF FATS

Cheerleaders should strive to incorporate small amounts of healthy sources of fat at each meal. Including heart-healthy fats in a sports diet has shown to enhance the immune system as well as promote recovery by reducing inflammation in the body. Dietary fats are made up of combinations of various fatty acids, each of which are found in different types of foods and have varying effects on blood cholesterol levels.

HYDRATION

Hydration plays a major role in both the health and performance for cheerleaders. The human body is made up mostly of fluids (at least 60%). Therefore, it is crucial for cheerleaders to properly hydrate their bodies, whether they are at practice, summer camp, team sport games, and/or competition.

When cheerleaders fail to hydrate, they become at a high risk of dehydration. The effects of dehydration can impair cheerleaders of performing to their potential and more importantly, puts their health and well-being at risk. Even just a small amount of water loss through sweat (2% or more of body weight; i.e. 2.5 pound weight loss for a 120 pound cheerleader) can negatively affect performance.

HYDRATION STRATEGIES

Cheerleaders need to keep in mind that hydration is a continual process. It is important to begin drinking fluids first thing in the morning and to continually hydrate as the day goes on to ensure a fully hydrated body going into practice or an event. Cheerleaders should not wait until they feel thirsty to start drinking fluids, as they may already be on the verge of dehydration. To ensure optimal hydration, cheerleaders can think of the hydration process in three steps:

1. **Pre-Hydration**

   - Proper hydration takes planning and preparation.
   - Coaches should inform their team ahead of time if or when practice will be intense, long, and/or held in a hot or humid location. This will allow the cheerleaders to pre-hydrate sufficiently.
   - Coaches should plan hydration stations in the practice area or require the team to bring their own water bottles.
   - Incorporating foods and fluids with a high electrolyte content into cheerleaders' daily meals is the way to ensure optimal hydration:
     - Water
     - Electrolyte beverage (i.e. Gatorade, PowerAde)
     - Coconut water
     - Milk
     - Yogurt
     - Bananas
     - Pretzels
     - If prone to cramping: can add salt, soy sauce, or other high sodium spices to meals
   - A simple way that cheerleaders can tell if they are hydrated before starting practice, cheering at a game, or competing is by looking at the color of their urine.
     - Urine that has the color of lemonade signifies hydrated.
     - Urine with the color of apple juice signifies dehydrated- cheerleader needs to drink more fluid.

2. **Mid-Hydration**

   - The goal of drinking fluids during a cheerleading event is to prevent dehydration.
   - Cheerleaders should arrive with their water bottles and/or electrolyte beverages and be prepared to hydrate throughout practice.
   - Water is sufficient for practices or events lasting one hour or less.
   - An electrolyte drink may be warranted for practices or events lasting longer than one hour and/or if they are cheering in hot, humid conditions.
   - Depending on the intensity of practice, coaches should plan for hydration breaks every 15- 30 minutes.

3. **Rehydration**

   - Rehydration can help cheerleaders: recover from practice or workout, prepare for the next practice or workout, and reduce risks associated with dehydration.
   - Goal of rehydration is to fully replenish any fluid and electrolyte deficit.
   - If weight was lost during practice or the event, drink 16-24 ounces of fluid per pound lost.
   - Continue to hydrate the remainder of the day to ensure full rehydration of the body.

ALCOHOL

Cheerleaders know that achieving optimal performance involves productive practices, hard workouts and conditioning, and strong psychological capacity. However, many cheerleaders tend to underestimate the way in which alcohol use, even a few drinks, can negatively affect their hard work by impairing their training, reducing their endurance, and weakening their mental game.

There are essentially no performance benefits from alcohol.

WEIGHT MANAGEMENT

It is common for cheerleaders and/or coaches to place a major focus on achieving an "ideal" body weight and body composition. This focus should not be solely for appearance purposes. Rather, the emphasis should be performance and health based to support the athletes' training/recovery and to prevent the potential risk of engaging in disordered eating behaviors in order to attain a certain body type.

BODY COMPOSITION

Body composition describes the percentages of fat, bone, water and muscle in human bodies. A higher percentage of lean body mass and lower fat mass is more advantageous to athletic performance. Excess body fat adds to the body's load and reduces its force-producing capacity (power/explosiveness needed in cheerleading). However, very low body fat percentages do not translate into improved performance and can potentially have detrimental effects on the health and well-being of cheerleaders. Minimum body fat percentage numbers are not explicit, but it is not recommended that males fall below 5% and females under 12%.

It is important for cheerleaders and coaches to keep in mind that body composition differs from one individual to another. There is no body fat percentage number specific to a flyer, base, back-spot, etc.; therefore, each cheerleader should base his or her body composition goals on which he or she performs and feels best. A Registered Dietitian can assist in assessing cheerleaders' goals as well as performing and tracking the measurements.

WEIGHT LOSS

Cheerleaders with weight loss goals should always set *healthy, achievable* goals and partake in nutritious, weight loss practices rather than short-term, (potentially dangerous) fad diets. Successful weight loss requires the body to be in negative energy balance, meaning a person consumes fewer calories than he or she expends/burns. One pound equals 3,500 calories. If a person reduces his or her typical daily calorie intake by 500 each day, he or she could lose approximately one pound per week. It is important to keep in mind that extremely low calorie diets are not recommended for cheerleaders. Cheerleaders still need to consume adequate calories to fuel their bodies for their active lifestyles as well as for maintenance of lean muscle mass.

WEIGHT GAIN

Like weight loss, cheerleaders with weight gain goals can do so in a healthy manner. Many cheerleaders who want to gain weight make the mistake of choosing lots of high fat, unhealthy foods. This approach will put on body fat instead of lean muscle; therefore, negatively affecting body composition, endurance, and strength potential. In contrast to weight loss, weight gain requires the body to be in positive energy balance, meaning a person consumes more calories than he or she expends/burns. In addition to a sound weight-training/workout program, successful weight gain can be achieved by consistently adding 500-1,000 calories a day to his or her typical daily intake.

EATING DISORDERS

Cheerleading is a high intensity sport, physically as well as mentally. In addition, there is a vast emphasis on appearance, which usually generates the desire to become thin (typically females) and the obsession with muscularity (typically males). As a result, it is common for cheerleaders of any age, gender, and/or ethnicity to attain distorted body images and potentially develop disordered eating patterns or full-out eating disorders. Coaches and parents need to be aware that cheerleaders are included in the category of "athletes at highest risk" for eating disorders. Eating disorder education and prevention are the keys to keeping cheerleaders healthy and mindful of the dangers associated with eating disorders.

DIETARY SUPPLEMENTS

All cheerleaders and parents of young cheerleaders must take note that the supplement industry (this includes all over-the-counter sports supplements and vitamin-mineral or herbal supplements) is not regulated the same as prescribed medications. Most supplements make many claims that appeal to athletes, but many have not been tested for safety, purity, or efficacy before being sold to consumers.

Most importantly, even if the ingredients on the label look "safe," there is always a risk of cross contamination with a harmful or banned ingredient. Supplement store clerks are not always knowledgeable about the safety and efficacy of supplements. Therefore, always use caution when considering a supplement.

FOR MORE INFORMATION VISIT:

1. The National Center for Drug Free Sport - www.drugfreesport.com
2. NSF Certified for Sport - www.nsf.org
3. Consumerlab - www.consumerlab.com
4. The Office of Dietary Supplements from the National Institutes of Health - http://dietary-supplements.info.nih.gov/

PRACTICAL CHEERLEADING NUTRITION

TRYOUTS

Tryout preparation typically consists of intense training and preparation (in addition to nervousness). Because of the amount of physical activity and energy expended during this training period, it is essential that cheerleaders keep their bodies properly fueled in order to maintain strength and energy levels.

It is common that female cheerleaders acquire the desire to lose weight leading up to tryouts. Many think that the only way to make the team is if they are small and thin. This is mostly due to the appearance-based stereotype cheerleading has received over the years. Experimenting with short-term, fad, weight-loss diets for the sole purpose of "looking the part" may weaken muscles and decrease energy availability, potentially compromising the execution of important skills. Even though there may be an appearance-factor associated with cheerleading, the individuals who demonstrate the strongest skill set, best technique, and a positive attitude are the ones who make the team.

Cheerleaders who are preparing for tryouts should eat three wholesome meals plus mid-day and post-training recovery snacks. Proper hydration is essential in keeping the body cool and resistant to dehydration and the symptoms associated with it.

Eating adequate meals and snacks on the day/s of tryouts is equally important. Nerves and anxiety are normal and may affect cheerleaders' appetites, but it is important to feed the body to provide the energy needed to get through the entire tryout process successfully. If there is a reduction in appetite the day of tryouts, cheerleaders may want to choose a liquid based meal replacements or bland, easily digestible solid foods such as: fruit & yogurt smoothie; toast and peanut butter; turkey wrap; granola bar; trail mix.

CAMP

Cheerleading camp is always an exciting and fun time. The travel and residence hall living associated with camp sometimes yields food-related issues. Cheerleaders tend to pack highly processed, sugar-packed snacks for the road. These types of food are not the best fuel for muscles and could leave cheerleaders fatigued early on in the week. Coaches should encourage their teams to pack healthier, nutrient-dense snacks and explain the positive benefits these can have on the team's energy level and mood.

The buffet-style dining rooms can also present some difficulties when it comes to choosing the most nutritious meals. Cheerleaders should remember that food is their fuel, and the foods they choose during mealtime can directly affect their performance. It is not always guaranteed that every meal served will consist of the healthiest options, but choosing a lean source of protein, whole grain carbohydrates, heart healthy fats, and vegetables (the majority of the time) will ensure an energy-packed meal. Hydration is always important, but even more so during camp due to the long, hot, active days. Water bottles should always remain filled and taken advantage of during all water breaks.

Another important reminder that all coaches should stress is that camp is not a time to diet/ lose weight. The energy demands of camp are extremely high, so it is essential that cheerleaders consume adequate calories to fuel their activity. If weight loss is warranted, cheerleaders should wait until camp is over to start reducing calorie intake. Healthy dietary practices and achievable goals should be the only way cheerleaders go about weight loss.

Sample snacks when traveling:

- Granola bars
- Apples
- Trail mix
- Beef jerky
- Peanut butter
- Whole-wheat crackers
- Rice cakes
- Pretzels
- Tuna fish pouches
- Popcorn (light butter)
- Bottles of water and electrolyte sports drinks

PRACTICE

Cheerleaders spend most of their time together as a team at practice. Whether a team is practicing for competition, sports games, or a simple pep rally, cheerleaders need to continue to fuel their bodies to ensure strength and energy are always at their maximum.

There is no special "diet" or specific food that is recommended for cheerleading; the key is choosing nutritious meals and snacks consistently, day in and day out. Depending on practice times, cheerleaders should eat almost the exact same way as during try-out preparation: three wholesome meals plus mid-day and post-training recovery snacks in addition to proper hydration. Coaches should recognize the importance of hydration and allow for adequate water breaks during practice. If hydration is not provided at practice, cheerleaders should always bring their own water bottles/sports drinks to rehydrate and small, quick digesting snacks for a carbohydrate-boost mid-practice.

Along with hydration, post-practice recovery meals/ snacks are just as important. Eating a post- practice recovery snack or meal within 30-60 minutes post-workout will initiate the recovery process by helping to refuel and replenish the body's energy stores and muscle fibers. Proper recovery enables cheerleaders to be physically (and sometimes mentally) ready for their next workout or practice. Combining both carbohydrates and protein in the recovery meal or snack will be the best way to help the muscles recover completely.

Sample Pre-practice Meals/Snacks:

Pre Workout Snacks (30-60 minutes before)

- Rice cake, topped with 1-2 tablespoons of peanut butter, and banana or fruit of choice
- Yogurt Parfait (Greek yogurt, fruit, and granola)
- Trail Mix (mixed nuts with dried cranberries and dark chocolate chips!)
- Half an English muffin, topped with 1-2 tablespoons of almond or peanut butter, and a 1 tablespoon of jelly/ jam
- Rice cake topped with 1-2 tablespoons of hummus and a couple slices of deli turkey
- Granola bar
- Whole wheat crackers topped with cheese
- Whole wheat toast with ½ avocado smashed on top and a hard-boiled egg

Pre Workout Meals (1-2 hours before)

- ½ cup of oatmeal with walnuts, berries, and cinnamon
- 2 whole wheat waffles with 1-2 tablespoons peanut butter and banana
- Whole wheat wrap with chicken, veggies, and mustard
- ½ cup of brown rice, lean meat, and veggies
- Bowl whole grain cereal, with low fat milk, and fruit
- Whole wheat bagel with cream cheese and fresh fruit
- Whole wheat pasta with sautéed shrimp and veggies
- Grilled chicken, turkey, or roast beef sandwich on whole wheat bread (with plenty of veggies)
- Tuna salad sandwich on whole wheat bagel thin with tomatoes and spinach

Sample Mid-practice Snacks:

Mid-workout snacks (quickly and easily digestible foods)

- Banana
- Dried Fruit
- Grapes
- Orange slices

Sample Post-practice Recovery Meals/Snacks:

Post Workout Meal/Snack (30-60 minutes post)

- Granola bar
- Energy gummies or gel
- Squeezable apple sauce
- Fruit Smoothie (frozen fruit blended with Greek yogurt, and low fat milk or almond milk)
- Veggie omelet with a piece of wheat toast
- 8-12 ounce low fat chocolate milk
- Protein pancake (mix 4 egg whites, ½ cup rolled oats, ½ cup low fat cottage cheese, 1/8 teaspoon baking powder, and ½ teaspoon pure vanilla extract. Cook on preheated griddle (medium low heat) until it bubbles, then flip and cook another 30-60 seconds. Top with fresh berries or sliced banana.)
- Greek yogurt topped with granola and/or nuts
- Peanut butter and jelly sandwich
- Chicken stir fry (chicken and fresh veggies sautéed together and served over brown rice)

GAMES

Cheerleaders cheering games have the potential to expend just as much or even more energy as they would at practice. Therefore, they should fuel, hydrate, and recover their bodies just as they would for a practice. If hydration is not provided, cheerleaders should bring their own water bottles to rehydrate during the game.

Half time may be a point when cheerleaders can eat a quick snack to help boost energy levels for the second half. Cheerleaders should try to avoid the concession stands and instead, pack more nutritious and energy-enhancing snacks. Other half time options may include: the school providing a wholesome snack for the cheer team, parents of young cheerleaders rotate and provide a healthy team snack, or older cheerleaders teaming up and assigning each team to provide a healthy snack.

Half Time Snack Ideas:

- Granola bars
- ½ Peanut butter and jelly sandwiches
- Bananas
- Grapes

COMPETITION

- Oranges
- Finger sandwiches
- Fig Newtons

Competition is what cheerleading teams have worked so hard for all year. Months of choreography, skill training, conditioning, and perfecting every move usually come down to about 2 minutes and 30 seconds on the mat. Cheerleaders want to walk onto the floor with absolute confidence knowing that individually and as a team they did everything in their control to be as physically and mentally prepared as possible, and that also includes eating right. Proper and consistent fueling strategies are undeniably important during competition practices and at the competition site. A well-fueled body not only ensures physical strength and energy but also peace of mind mentally because cheerleaders know that their body is fed and ready to go.

Like cheerleading camp, competition usually involves some sort of travel. The same travel snack concept applies to competition travel, as well as at the competition site. The food sold at these sites is almost always high in fat and highly processed and therefore not recommended as the food of choice for cheerleaders preparing to compete. Planning ahead and packing snacks is the best way to ensure wholesome, energy-packed, familiar foods and prevent any risk of stomach discomfort, sickness, or fatigue from the processed concession items.

Sample Competition Snacks:

- Granola bars
- Peanut Butter and Jelly sandwiches
- Turkey wraps
- Pretzels
- Fresh fruit
- Yogurt
- Trail mix
- Hummus and crackers
- Bottles of water and electrolyte sports drinks

NUTRITION RESOURCES

1. The Academy of Nutrition and Dietetics: www.eatright.org
2. The Academy of Nutrition and Dietetics' Sports, Cardiovascular, and Wellness Nutrition Dietetic Practice Group: www.scandpg.org
3. My Sports Dietitian: https://home.mysportsd.com/
4. Eating Disorder help/referral network: www.somethingfishy.org
5. The Australian Institute of Sport : www.ausport.gov.au/ais/nutrition
6. Gatorade Sports Science Institute: www.gssiweb.com
7. USDA Choose My Plate: www.myplate.gov

REFERENCES

1. American Dietetic Association. (2009). Position of the American Dietetic Association, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and Athletic Performance. J*ournal of the American Dietetic Association.*
2. American Heart Association. (2014, April 21). *Know Your Fats.* Retrieved May 31, 2014, from American Heart Association: http://www.heart.org/HEARTORG/Conditions/Cholesterol/PreventionTreatmentofHigh

Cholesterol/Know-Your-Fats_UCM_305628_Article.jsp

3. Clark, Nancy. (2014). *Nancy Clark's Sports Nutrition Guidebook, 5th edition*. Newton, MA: Human Kinetics.
4. Higgins, Leanne B. Nutritional Safety. *AACCA Cheerleading Safety Manual, 3rd ed.*
5. Rosenbloom, Christine A.; Coleman, Ellen J.; Sports, Cardiovascular, and Wellness Nutrition Dietetic Practice Group. (2012). *Sports Nutrition A Practice Manual for Professionals 5th edition.* Diana Faulhaber

Cheerleading Skill Progressions

CHAPTER 8

PROGRESSIONS

The development of movement skills in a slow and progressive manner is unquestionably the cornerstone to safe learning and performance in all cheerleading activities. It requires careful selection of the appropriate skills as well as allowing sufficient time for practice and skill mastery at each stage in the learning sequence. "Repetition" and "mastery" of a broad spectrum of basic skills which have a direct, progressive relationship to the more advanced maneuvers are essential ingredients for safe and effective learning. **Proper execution techniques of the basics also serve as a major criterion for determining whether or not a cheerleader should be permitted to advance to the next and more difficult level.**

Lack of experience as well as an over-zealous attitude on the part of both coaches and cheerleaders sometimes results in advancing the difficulty level of the skills and/or routines beyond the current capabilities of the squad members. Furthermore, depending too heavily on spotting and additional matting at the expense of skill mastery usually leads to unsafe conditions, often resulting in injury to the participants. **A competent cheerleading instructor will always insist upon demonstrated mastery of basic level skills before allowing squad members to advance to the next progressive level.**

While the use of appropriate skill progressions is an excellent precaution and can enhance the level of safety in any learning situation, it must be emphasized that no procedure is foolproof. Each individual participant has unique learning potentials with specific strengths and weaknesses that require regular evaluation and re-evaluation. Consequently, sound judgment and prudent decisions must be exercised at all times by coaches and participants alike.

Body Awareness Techniques

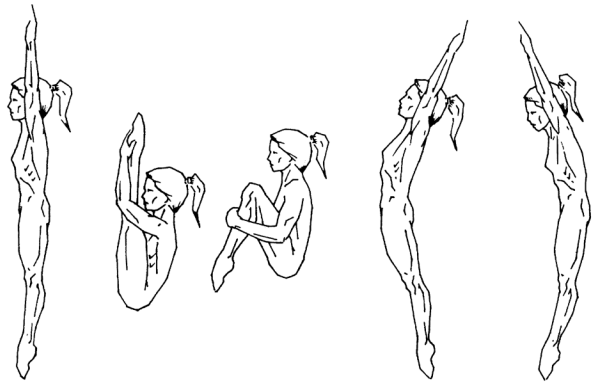
By Steve Wright

Body awareness is the recognition of different parts of one's own body, their relative position during movement, and their relationship to the environment. All of us possess a given amount of innate body awareness, some of course more than others. However, body awareness is a faculty that, through appropriate practice, can be developed significantly. And the degree to which this awareness capacity can be developed determines, to a large extent, one's potential for successful skill learning. It is reasonable then to recommend that the teaching of body awareness be an on-going process and should be continuous throughout the career of every athlete. This is particularly true at the beginning stages of learning new and/or difficult skills.

Cheerleaders in particular can benefit from the development of body awareness because of the tumbling, balance and acrobatic nature of their activity. **Many of the skills and maneuvers require various "inverted" positions, something to which the average person is not accustomed. In addition, partner stunts and pyramid building employ the coordinated**

effort of two or more performers and, as such, require a special sense of "collective body awareness."

Whenever a new skill is being learned, it is important that performers attempt to "feel" and "visualize" the correct movement pattern. This process begins with the mastery of basic body positions and the development of proper "sighting techniques". Proper sighting techniques always incorporate focusing on a stationary object on the ground in the intended direction of the motion.



a. *b.* *c.* *d.* *e.*

Figure 8.1

Basic body shapes: a) straight; b) piked; c) tucked; d) arched; e) hollowed.

The learning and practicing of basic body shapes common to tumbling is a good starting point. As depicted in Figure 8.1, these shapes include, but are not necessarily limited to, the following:

A) **Straight** – a neutral shape where the shoulders, hips and feet are all in the same vertical or horizontal line.

B) **Piked** – a shape achieved by bending at the hips with straight knees to create a desired angle where the upper and lower parts of the body are in close proximity to each other.

C) **Tucked** – a shape achieved by lifting bent knees towards the upper torso and/or head.

D) **Arched** – a shape achieved by tightening the lower back and buttocks muscles while lifting the shoulders and/or arms to create an expanded (or open) body position.

E) **Hollowed** – a shape achieved by squeezing the core abdominal muscles (hollowing) and rounding the back to create a constricted (or closed) body position.

It is important to remember that body shapes can and should be practiced and mastered in a variety of positions relative to the ground (i.e., standing, sitting, prone, supine, side-lying, inverted [handstand], etc). **These as well as other body shapes characteristic to partner stunts and pyramid building should first be mastered on the ground before attempting them in the actual activity.**

Once these body shapes have been adequately mastered in stationary positions, the performer is ready to begin practicing them in low level dynamic movements such as the following: while adding basics twists and inversion, such examples include:

A) **Upright jumping and landing** - while airborne, assume a specific body shape (i.e., straight, piked, tucked, arched, etc.).

B) **Upright jumping, twisting and landing** - jumping with 1/2 turns both to the left and right, jumping with full 1/1 turns both to the left and right. These can be done either singularly or in succession and are excellent drills for the development of spatial awareness in the twisting dimension.

C) **Basic rolls and jumps** - a series of rolls (forward and backward), ending each roll with a jump skill (i.e., tuck jump, straddle jump, jump 1/2 or jump full 1/1 turn to right or left, etc.).

D) **Headstand and Handstand Variations** - headstand balance, handstand balancing, walking, and/or pirouetting (turning) as well as rolling into and out of headstands and handstands, etc.

E) **Cartwheels** - cartwheeling to the left and right, one-arm cartwheels (lead arm and trail arm), etc.

"Start simple, master it, and then build upon it."

Developing proper body awareness, employing appropriate lead-up progressions, and allowing sufficient time and repetition at each stage of skill development will help to significantly reduce many of the potential hazards associated with cheerleading. **Always keep in mind that potential risks of injury exist in virtually every athletic activity and that, even under the best of conditions, they cannot be eliminated completely. Wise teachers, coaches and participants are aware of this and always act prudently in this regard.**

GUIDELINES FOR ASSESSING BODY AWARENESS

1. Can the performer readily distinguish between as well as demonstrate a wide variety of basic body shapes and positions?
2. Can the performer demonstrate efficient and effective changes in a wide variety of basic body shapes and positions?
3. Can the performer demonstrate a reasonable level of awareness specific to basic body shapes and total body positions relative to the ground (kinesthetic ability)?
4. Can the performer demonstrate how to land properly in a variety of settings?
5. Can the performer demonstrate how to effectively and safely recover from off- balance landing situations specific to over-rotation and under-rotation?
6. Can the performer consistently demonstrate proper technique in "visual cueing"?
7. Can the performer demonstrate consistently left and right directions particularly when in inverted positions?
8. Has the performer been afforded sufficient time and repetition at each stage of skill development to insure safe execution?
9. Does the performer appreciate the limitations of the body relative to the cheer activity, particularly the dangers of bearing excessive weight on the head and neck, lateral flexion of the knees, hyperextension of the elbows, undue strain on the wrists, ankles, shoulders and spine?
10. Does the performer appreciate his/her specific performance limitations?

Landing Techniques

By Chris Opheim

Cheerleading is an activity that involves many athletic movements such as jumping, tumbling, stunting, and dismounts from stunts, all of which involve the requirement of landing safely back to the performing surface or ground. Mastering proper landing techniques is key to the safety and well-being of the performer. Due to the variety of cheerleading skills, **it is imperative that safe landing techniques be practiced until they become automatic to the performer.** Otherwise, the potential for injury can be increased significantly.

The possibility of unintentional falls and mistimed dismounts looms present in any acrobatic setting, and cheerleading is no exception. While there are numerous techniques and strategies that can be employed to minimize such mishaps, the fact is that errors in performance will eventually occur. Consequently, the importance of mastering proper recovery techniques cannot be overemphasized. Progressive practice drills specifically designed to teach participants how to dissipate the impact forces inherent in landings should be an integral part of every cheerleading program.

A fundamental safety guideline in the teaching and practicing of proper landing techniques is to begin at ground level. Performers should be able to demonstrate proper landing mechanics in a wide variety of ground level settings. By beginning training at ground level, a small amount of energy is involved. Once mastery is achieved at ground level, gradually increasing the height of a drop will aid an athlete in learning how to handle more energetic landings. It is important that participants be allowed sufficient time at each level and be required to demonstrate mastery of the landing techniques before moving on to the next and/or higher levels. In addition, an attempt should be made to simulate the kinds of landing experiences characteristic to the cheerleading activity. This not only includes mastery of techniques for intentional landings but also for mistimed landings and falls.

Regardless of technique, an athlete's physical strength and flexibility are also key factors in the ability to slow the descent in a controlled manner. Lacking in adequate levels of physical strength and/or flexibility can lead to a greater chance of injury. The stronger and more flexible an athlete is, the less likelihood there will be of an injury occurring. This applies to the performing of skills as well as landing techniques. Consequently, conditioning for cheerleading activities should be an integral part of the training program and is usually conducted at the end of the practice session.

Appropriate matting and surface area is another essential aspect in athlete safety. This is true especially for any skill that involves inversion of the body, i.e., somersaults, back handsprings. Although absolute prevention of injuries is impossible, use of appropriate matting can serve to lessen the severity of an impact in the event of a bad or unexpected fall.

"Spotting" or "visual cueing" is another very important factor in insuring a safe and effective landing. Whenever descending from any height, the athlete should always make a conscious attempt to focus directly on a fixed frame of reference. For example, an athlete should be taught to "spot" (look for) the wall in attempting a basic twisting jump. This will help in determining when the twist has completed full circle during the exercise. **In performing a back somersault, it is imperative that the athlete be taught to "spot" the ground for better body orientation.** By spotting the ground before and during the actual somersault, the landing will be safer, more accurate, and more consistent.

In forward rotating somersaults however, it is difficult, if not impossible, to spot the ground for a landing. Because of the forward rotation, forward somersaults have a "blind landing," where the athlete must rely less on the visual cue, and more on the "feel" of the movement. In this case, the spot would move from the ground to another fixed frame of reference, such as the wall to help prepare the athlete in advance for the landing. This technique affords an additional measure of orientation. Spotting a reference point early in the descent phase of any skill helps an athlete more accurately gauge the distance of the drop, thereby insuring better readiness for actual contact with the ground.

In order to help insure a safe landing, it is necessary to somehow absorb and/or dissipate the momentum of the actual impact. If a novice cheerleader were asked to jump up and down in place without any training, he/she would probably land in a reasonably correct fashion, i.e., flexing/bending and/or giving-in under tension at the ankle, knee and hip joints to help absorb the force of impact. When landing from a higher location, the force of the landing is significantly greater, yet the mechanics that should be employed to help absorb this force are still the same. It's basically a matter of knowing how to prepare and deal with the increasingly greater amounts of landing force. And this, of course, takes practice.

Prior to attempting landing techniques from any level above knee height, athletes should be able to readily demonstrate good technique in a variety of basic rolls, i.e., forward and backward rolls, forward and backward shoulder-rolls, sideward rolls to the left and right, etc. Familiarity in this regard insures an added dimension of safety in that basic rolling techniques are excellent ways to dissipate energy, particularly when having to recover from an uncontrolled fall.

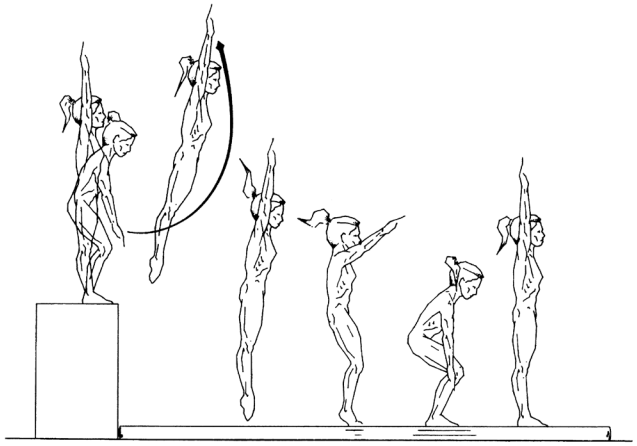


Figure 8.2
Example of good landing technique.

Figure 8.2 illustrates good technique in landing from a higher location. In this and virtually every upright landing, the balls of the feet should be the first body part to make contact with the ground. The athlete should attempt to stretch downward in preparation for the landing. The ankles, knees and hips are extended, but not locked out, and should bend with tension to help absorb the landing force.

It is important to realize that the larger the distance the athlete gives-in on the landing, a smaller amount of force will be realized on each joint. However, **athletes should be cautioned not to give-in to a full squat position as this alone can be injury producing.** The downward force of the landing should be fully stopped by the time the athlete attains a semi-squat position.

Also notice that the performer is "spotting" the ground throughout the entire descent in order to more accurately gauge the distance and speed of the drop. As ground contact is being realized, the athlete's arms drop rapidly downward. This action helps to lessen the force of impact as well as to the athlete's lower center of mass, both of which serve to increase the stability of the landing. Making ground contact with the feet spread slightly apart (less than shoulder width) increases the athlete's base, further enhancing landing stability.

The mechanics and techniques for safe landings are essentially the same regardless of the skill being executed. Figures 8.3 and 8.4 illustrate a tuck jump and a toe-touch jump respectively.

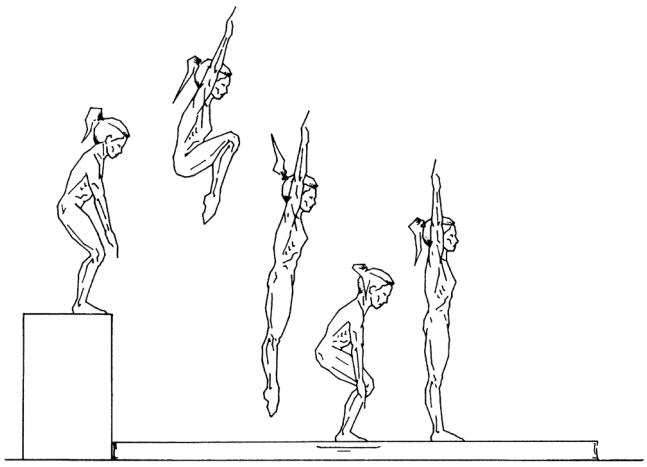
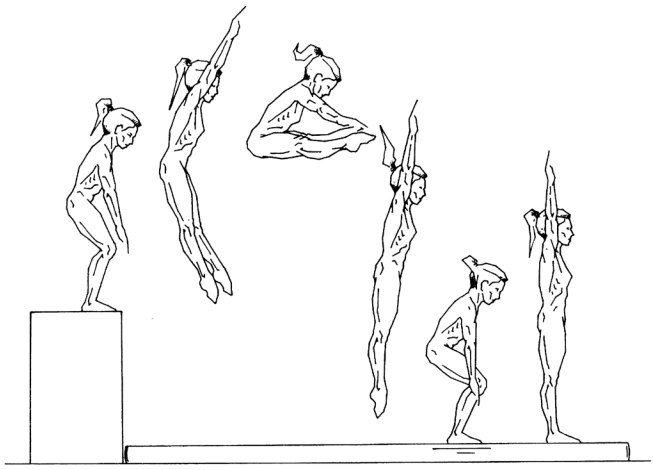


Figure 8.3 Tuck jump landing.

Figure 8.4



Toe-touch jump landing.

Notice that the actual landing mechanics are identical to that of the basic jump. It is only during the airborne phases of these skills that the performer assumes a different shape (i.e., a shape characteristic to the skill being attempted). In preparation for landing however, the performer in both cases again stretches for the ground, sights the landing surface, makes first contact with the balls of the feet, uses leg tension-with-flexion (only to a semi-squat position) to absorb the bulk of the landing force, and rapidly drops the arms upon contact to further enhance landing stability. A spotter is recommended during the initial learning phases.

The same concept of dissipating the force of contact over a distance applies when executing a low, controlled fall to the hands, such as a prone fall depicted in Figure 8.5. Again, notice how the athlete stretches for the landing surface (this time with arms, extended but not locked), making initial contact with the fingers and upper palms of the hands, flexes-with-tension in the wrist, elbow and shoulder joints (similar to executing the down phase of a push-up), and absorbs the force of impact through as large a distance as is safely possible.

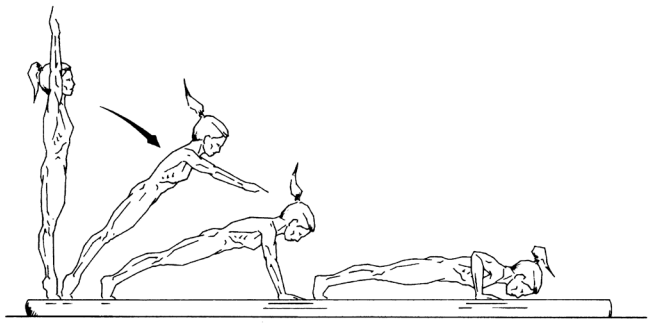


Figure 8.5 Prone fall landing.

For safety reasons, it would be wise to master some related lead-up skills before attempting a prone fall. These include mastering basic progressions such as kneeling upright and fall forward to the hands, assuming a straddled position and falling forward to the hands, etc. **Using the basic safety concept of "start low and build up" will go a long way to insuring safe landing practices.**

Figure 8.6 depicts common errors and tendencies observed by untrained cheerleaders confronted with uncontrolled and/or mistimed landings. Notice that the limb contacting the ground is extended and LOCKED. Since the forces are not dissipated through "giving-in" with the movement, they must be received directly into the limbs themselves, often resulting in serious injury.

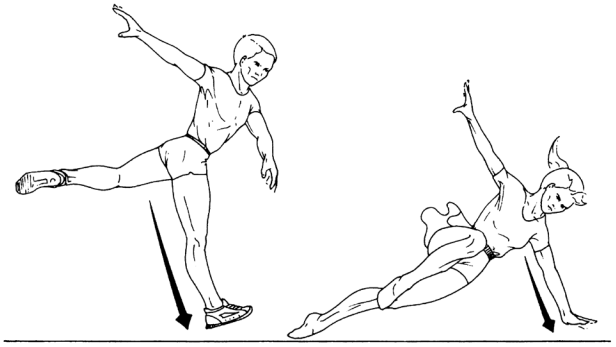


Figure 8.6

UNSAFE landing technique.

Regardless of the skill being attempted, athletes should never land with fully extended and/or locked limbs. Keeping arms or legs locked upon contact with the ground prevents the force of the landing to be dissipated over a distance and, more often than not, results in serious injury to the joints and even other parts of the body. Consequently, **cheerleaders should be taught to avoid the natural temptation of trying to break a fall by reaching out with locked limbs.**

It should go without saying that a fall to the head, neck, or back can cause serious, catastrophic injury, or even death. Skills such as somersaults, which require inversion of the body, more readily predispose cheerleaders to the probability of this type of mishap. Consequently, the guidelines outlined in this manual regarding performer readiness, instructor competency and proper environment should be studied carefully and strictly followed.

GUIDELINES FOR SAFE LANDING TECHNIQUES

1. Every attempt should be made to avoid landing on one's head, neck, or back as this can result in serious, catastrophic injury, or even death!
2. Progressive drills specifically designed to teach cheerleaders how to disperse the force upon landing should be an essential part of every cheerleading program.
3. Safe landing techniques should be practiced until they become automatic.
4. Landing techniques should be practiced on a regular basis regardless of skill level.
5. Proper landing techniques should first be taught at "ground level".
6. Prior to attempting landing techniques from a level above knee height, cheerleaders should be able to readily demonstrate good technique in a variety of basic rolls.
7. "Spotting" or "sighting" is an essential part in the teaching and learning of proper landing technique.
8. In properly executed landings, the balls of the feet are the first body part to make contact with the ground.
9. Regardless of the skill being attempted, performers should never land with fully extended and/or locked limbs.
10. When absorbing the force of landing, performers should also be cautioned not to give-in to a full squat position as this alone can be injury producing.

Tumbling Progressions

By Steve Butcher

Tumbling may serve as the athletic basis for many cheerleading activities. Proficiency in tumbling provides participants with the fundamentals of body movement and kinesthetic awareness essential to safe and effective learning in many areas of cheerleading. Most advanced partner stunting and pyramid building are forms of tumbling. Consequently, **trained coaches/advisors understand the importance of cheerleaders being able to demonstrate a basic level of tumbling competency before allowing them to participate in related cheerleading activities.**

AREAS OF SAFETY CONCERN

Tumbling, like all other physical activities, possesses several areas of safety concern and inherent risks. It should be emphasized that **the foreseeable risks associated with tumbling can be minimized for the program that is conducted by properly trained professionals.** The fundamental areas of safety concern include:

THE SOMERSAULT

While cheerleading requires the same training intensity as many other traditional sports. Participants may require special attention and training due to cheerleading involving somersaulting.

Somersaulting involves "rotation and inversion of the body in the air," a factor which, increases the potential for serious, catastrophic injury or even death especially if a performer were to land on his/her head, neck or back. Since mishaps and resulting injuries are more likely to occur when height and rotation are combined in a single movement or series of movements, proper environment, adequate supervision, appropriate spotting and careful, progressive skill development are essential prerequisites to ensuring a reasonably safe tumbling environment.

CAUTION!

Forward somersaulting skills are characterized by greater risk and are more difficult to master than backward somersaulting skills. *This is largely caused by the inability to see the landing surface. Exercise, appropriate progressions and competent spotting need to be employed when teaching any somersaulting skill— particularly those in the forward direction.*

TRAINING SURFACES AND MATTING

The appropriate use of tumbling mats placed on top of any hard performing surface (i.e., wood floors, concrete, etc.) can help lessen the shock normally associated with correct landings, incorrect landings and unanticipated falls. **However, it must be stressed that matting, regardless of type, quality or amount, cannot completely prevent serious, catastrophic injury or even death.** The most important consideration is ultimately **"how one lands."**

Tumbling mats, as well as any type of training surface, should be regularly inspected for cracks, holes, dead spots, undue wear, and should be repaired/replaced as needed. In order to minimize slippage, tumbling mats should always be kept dry and be cleaned when needed.

As cheerleading activities take place in a variety of indoor and outdoor locations, it is important that particular attention be given to ensure that the performance area is "level". The prudent coach will transition the cheerleader(s) to the appropriate surface in advance of the actual performance/competition.

ADEQUATE SUPERVISION

A trained coach/advisor should always be present during all tumbling activities. The prudent coach will inspect the tumbling area prior to the activity and supervise the warm-up and training session while ensuring that proper skill progressions are being carefully followed.

PERFORMER READINESS

Coaches/advisors frequently deal with beginners in their first tumbling sequence. These beginners are typically eager to learn and progress quickly. Most importantly these beginners require additional care to develop the kinesthetic awareness associated with tumbling. **Appropriate time for skill progression, repetition must be afforded to the process of learning and mastering basic tumbling skills. This will ensure the development a solid basis in fundamental muscle memory patterns.**

PHYSICAL READINESS

While there are a number of people who share in the responsibility of developing the physical readiness of cheerleading participants, no one is more directly responsible than that of the coach/advisor. Coaches/advisors and participants alike should be aware that the fundamental readiness of any performer begins with health and physical fitness. In particular, it is important to emphasize core strength as the stronger the body's midsection, the more rapidly the tumbling may progress.

PROPER WARM-UP

An adequate warm-up is critical to safe tumbling. **An adequate warm-up may help reduce injury, enhance performance and provide some brief opportunities to rehearse simple movements prior to performance.**

The objective of the warm-up is to raise the body core temperature so that muscles can contract and relax more

readily. Warm-up activity should begin with light motion such as jogging, running in place, low impact aerobic dance, rope skipping, etc. In order to raise body core temperature sufficiently, this activity should be of a continuous nature for 5 to 10 minutes or until the athlete begins to perspire. Following the initial warm-up, the activities can shift to light and easy stretching followed by specific flexibility.

Proper flexibility training consists of carefully moving a body part or parts through a broad range of motion while maintaining joint stability and strength. Proper stretching is vital to successful performance of movements required in tumbling and will also aid in in the reduction of injuries.

Injuries related to muscle strains and ligament sprains can result from insufficient or inadequate warm-up. An adequate warm-up ensures that performers are best prepared to respond to the quick movements involved in many tumbling skills.

Upper body exercises need to encompass the back, neck, shoulders, elbows, and wrists, while lower body exercises focus on the legs and ankles.

TEACHING PROGRESSIONS

The use of progressions is the only safe and effective method for tumbling instruction. **Teaching and learning of skills slowly and in a progressive manner is a fundamental component to success and safety.**

Tumblers should never attempt any new or unfamiliar skills without first mastering the essential progressions (lead-ups). A "simple-to-complex" progressional plan, where skills are broken down into more basic movements, will aid in skill development and safety. Coaches/advisors should always anticipate the possibility of problems and be prepared to act accordingly. These coaches/advisors also need to make every effort to ensure that the students hear the instructions completely and understand how and why simple lead-up skills relate to more complex ones.

Good progressions are the key to safety and to the learning of more difficult skills. This requires repetition of basic skills to create an elementary base of "building blocks" leading to safer and more consistent skill development. Many skills require an increase in strength or improvement in technique which can most optimally be achieved through strength conditioning or the repetition easier skills. Proficient coaches/advisors can recognize this necessity and work to prepare each cheerleader physically for any new skill. It is important to insist on adherence to a table of progressions while avoiding any shortcuts, recovery elements, or assumption of risks. No performer should participate in an activity where he/she is physically or mentally unprepared.

BODY AWARENESS AND LANDINGS

Body awareness is a performer's ability to perceive his/her body parts in relationship to each other and to the ground while tumbling. This is the fundamental rationale for utilizing progressions in tumbling. Once basic skills and concepts are mastered, a performer may then proceed, in a progressive manner, to more complex skills. The benefits of body awareness training include: greater control, enhancement of potential for successful skill learning, and most importantly, SAFETY!

VISUAL CUEING

The development of visualization (visual cueing or "sighting" of a skill) is an important component in the safe and successful performance of tumbling skills and sequences. Lack of appropriate visual techniques may result in an unsafe or undesirable outcome. Performers should be encouraged to concentrate on using their eyes to establish a frame of reference during the execution of all skills. Focal points (i.e., where to look before, during, and when preparing for a landing of a skill) should be stressed. **Visual techniques should be taught as part of every tumbling sequence, beginning with the initial stages of learning and continuing throughout the learning of more difficult skills.**

LANDING

A primary concern is teaching participants to land safely from jumps, tumbling, partner stunts and pyramids. Landing practices should regularly be performed beginning on tumbling matting with simple jumps and turns, with the coach/advisor emphasizing the use of the legs as "shock absorbers," bending to cushion the body as it lands. **Landing with straight legs can cause an immediate acute injury and also long term damage to the legs, ankles and lower back.**

LEARNING TO FALL

Every cheerleader will have to recover from a fall out of a stunt, pyramid or tumbling skill. Falls generally occur either forward or backward, with sideward falls occurring less frequently. Recovery techniques must always be taught in tumbling to minimize serious problems in landing later from more difficult skills, as well as from stunts and pyramids. Safety rolls are important as recovery techniques in that they help to minimize and dissipate the force of the fall by rolling (forward roll for forward falls, backward rolls for backward falls and shoulder rolls for sideward falls). **Participants need to practice these skills until they become automatic** as landing on an outstretched arm often results in dislocations and/or fractures. (See Chapter 8—Section 2, Landing Techniques).

PROGRESSIVE TUMBLING SKILLS

Essential prerequisites to safe tumbling include identification and utilization of building-block skills, also called progressions. Mastering each skill is vital before advancing to the next progressive or more difficult skill. This "simple-to-complex" methodology will help prevent any lull in developing more complex skills and decrease the risk of injury. It is also important to always continue to improve the more basic skills throughout a performer's career or the more advanced tumbling skills could eventually begin to decline in quality while increasing the potential for injury.

THE PHASES OF TUMBLING

Introductory	Rolls	Front Roll Back Roll
Beginner	Skills through a handstand	Handstand Cartwheel Back Kickover Roundoff
Intermediate	Handsprings, Walkovers, & Limbers	Back Limber Front Limber Back Walkover Front Walkover Standing Back Handspring Roundoff Back Handspring Front Handspring
Advanced	Somersaults	Standing Back Somersault Roundoff Back Handspring Tucked Back Somersault Standing Two Back Handsprings Back Somersault Roundoff Back Handspring Piked Back Somersault Roundoff Back Handspring Layout Back Somersault

INTRODUCTORY LEVEL

FRONT ROLL

From a standing position, with arms straight and held overhead, bend the knees into a squat position. Place hands flat on the floor approximately shoulder-width apart and push with the legs while shifting the body weight onto the hands. Place the chin to the chest while rounding the body, head tucked in. Continue pushing with the legs while rolling forward onto the back and upper shoulders. The body continues rolling forward until both feet reach the floor and the performer stands up. Arms do not assist the performer to stand and remain by the ears. (See Figure 8.7)

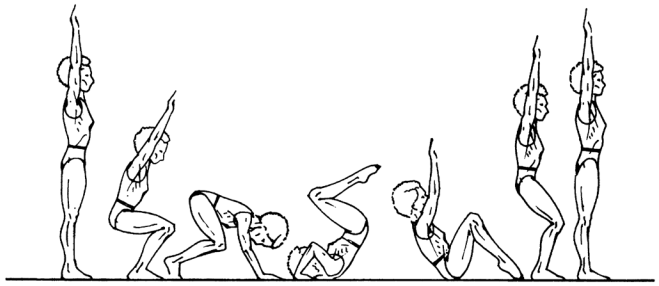


Figure 8.7 Front Roll.

Variations: front roll to straddled stand, front roll pike to straight stand, front roll single-leg rise.

BACK ROLL

From a standing position, with arms straight and held overhead, bend the knees into a squat position. Roll backwards while bending the arms to reach behind the head with elbows in. Tuck the chin to the chest while rounding the torso. Immediately place the hands on the floor by the shoulders with fingers pointing towards the shoulders, thumbs next to ears, and press forcefully against the mat in order to support the body weight during the inverted phase of the back roll. The legs must sustain a tightly tucked position as the feet move overhead and to the floor. Continue pushing with the arms and extend with the legs to a straight stand position with arms held directly overhead. (See Figure 8.8)

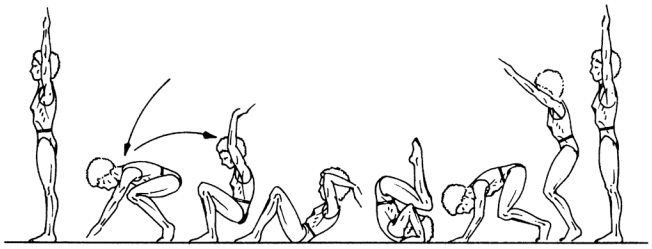


Figure 8.8 Back Roll.

Variations: back roll to straddled stand, back roll pike to straight stand, back extension roll

BEGINNER LEVEL

HANDSTAND

Learning how to effectively support the entire weight of the body solely on the hands is an essential progression for further skill development.

Two types of handstands should be mastered, (1) the kick to handstand and return to stand and (2) handstand to front roll. Both start from a standing position with arms overhead against

the ears. Take a forward step into a lunge position. Lift the straight rear leg overhead while pushing against the ground with the bent forward leg. Hands should be placed on the floor with fingers apart and pointing forward approximately shoulder-width apart. Eyes should be looking at the hands, helping to assure a stronger support position while on the hands. Arms need to be kept straight and in alignment with the torso. Bring both legs together vertically over the hands and body, continue extending through the shoulders. The performer can return to a lunge position or execute a front roll. (See Figure 8.9)

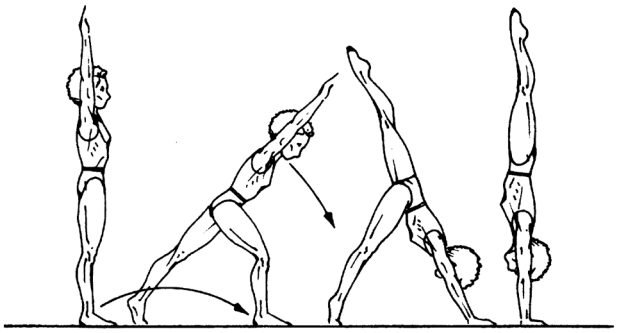


Figure 8.9 Handstand.

Variations: headstand, straddled handstand, split leg handstand

CARTWHEEL

Start with arms overhead against the airs and facing sideways to the mat in a stretched body position. Lift one leg and step into a side lunge, reaching up and outward with both arms, lifting the lead leg overhead. The arms should be straight and shoulder-width apart. The eyes should remain fixed on the hands throughout. The performer passes through a straddled handstand position, stepping down with the lead leg and then the trail leg, and finishes facing the same direction as the start. Timing of the cartwheel should be five counts (i.e., foot-hand-hand-foot-foot). (See Figure 8.10)

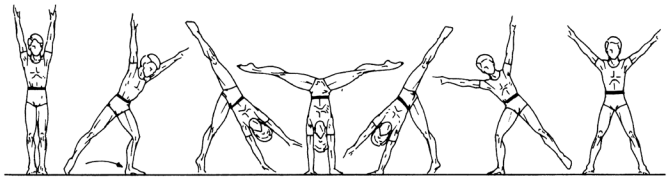


Figure 8.10 Cartwheel.

Variations: cartwheel (left and right), one-arm cartwheel (lead arm), one-arm cartwheel (far arm), forward to sideward, forward to backward

BRIDGE KICKOVER

Practicing a bridge is an integral progression for safely learning several more advanced skills. The bridge requires back and shoulder flexibility while the performer demonstrates the strength necessary to hold their body in an inverted arched position, necessary for future back handsprings.

To perform the bridge the performer lays face up on the floor with the hips and knees bent so that feet are positioned near the buttocks. Palms must be placed flat on the floor with fingers apart and pointing towards the shoulders, thumbs next to ears. Push the body upward with the arms and legs, eyes looking at the hands. In order to perform the kickover, the performer shifts their weight towards their hands and lifts one leg while pushing off the floor with their flexed leg. The performer passes through a split handstand position finishing in a lunge.

The kickover can be learned using progressions from a folded panel mat. The legs can be placed on the panel mat and one mat level at a time can be removed after each successful solo kickover to lunge has been performed. (See Figure 8.11)

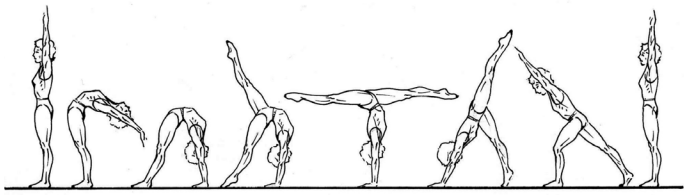


Figure 8.11 Bridge Kickover.

Note: For male performers with a lower degree of flexibility, bridge kickovers, and other back/shoulder flexibility skills (i.e. limbers and walkovers), can pose a greater risk

of injury to wrists, the back, and shoulders. Also these male performers will never need to demonstrate some of the extreme flexibility positions later needed by female flyers. Therefore many of these male performers may find it more advantageous to move from a bridge kickover (even from a folded panel mat) directly to the back handspring with a high degree of success. Male performers usually compensate for the lack of flexibility with greater muscular strength and power.

ROUNDOFF

Stand with a straight body facing forward with arms overhead next to the ears. Step forward with one leg into a lunge position and forcefully kick the rear leg overhead by pushing off the ground. The hands are quickly placed on the floor in a one-two sequence (similar to a cartwheel) with the shoulders making a quarter turn. The trail leg meets the lead leg overhead. The legs come together just past the inverted position. Then the performer executes an additional quarter turn while pushing vigorously with the hands and through the shoulders, and quickly snaps the legs down to stand vertically. The performer will finish in a landing position opposite the direction of the start. (See Figure 8.12)

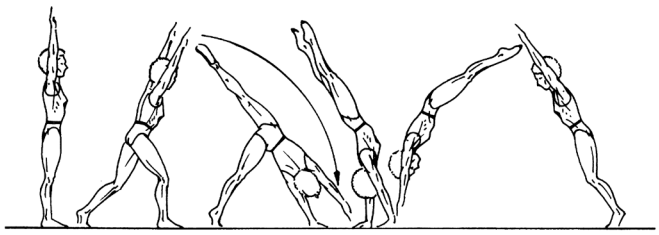


Figure 8.12 Roundoff.

The roundoff is a skill that must continue to develop and improve when performed throughout every level of tumbling. In many cases the improvement of the roundoff will determine the maximum level of backward tumbling achieved by many performers in their lifetime.

Note: Once a reasonable level of proficiency has been attained, the roundoff can be initiated from a "hurdle." A hurdle is a forward "skip-step" movement used as an enhancement transition between the step and the actual skill to improve acceleration (also used for a front handspring). When first learning this skill or any series where a run can be performed, it is important NOT TO RUN. Take several steps with a controlled hurdle during the entry. This will improve safety and ensure proper technique is developed.

Variations: roundoff—snap backward or past the vertical (for a back handspring), roundoff— rebound (for an immediate tucked back somersault)

INTERMEDIATE LEVEL

BACK LIMBER

Stand facing backward with legs slightly apart in a stretched body position with arms overhead against the ears. With arms, head and chest lifting up, shift the hips forward keeping back tight, look and reach backwards placing hands on the floor. The arms should stay by the ears and eyes looking at the hands throughout. From here the performer can return to standing by shifting the hips forward over the feet as the chest is lifted up. Or the performer can continue backwards by shifting the weight through the shoulders and kick over to the feet. Do not attempt to stand up by pulling the arms and/or head forward. This will cause the hips to shift backward and force the weight into the lower back region. (See Figure 8.13)

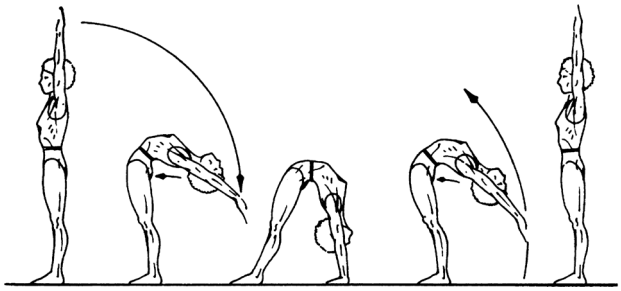


Figure 8.13 Back Limber.

Note: For male performers with a lower degree of flexibility, all back/shoulder flexibility skills (i.e. limbers, and walkovers), can pose a greater risk of injury to wrists, the back, and shoulders. Also these male performers will never need to demonstrate some of the extreme flexibility positions later needed by female flyers.

FRONT LIMBER

A front limber is an important progression to learning forward and backward walkovers. Performers need to possess adequate hyperextension flexibility in the upper back and shoulders and learn to shift his/her weight properly in order to keep from applying too much weight in the lower back region. It is also important to adequately warm up prior to attempting any limber or walkover movements.

Stand facing forward in a stretched body position. Arms should be overhead and pushing against the ears while stepping forward into a lunge position. Lift the extended rear leg overhead by pushing against the ground with the flexed leg. Place the hands on the floor approximately shoulder-width apart with fingers apart and pointing forward. Eyes remain focused on the hands throughout. Be sure to keep the arms straight and directly aligned with the torso. Shift the shoulders towards the direction from where you started, keeping the lower back tight, the feet should move forward through a handstand until they contact the floor. Immediately the hips should shift forward over the feet as the chest is lifted up. The arms should stay by the ears, eyes still looking at the hands until complete. **Do not attempt to stand up by pulling the arms and/or head forward. This will cause the hips to shift backward and force weight into the lower back region.** (See Figure 8.14)

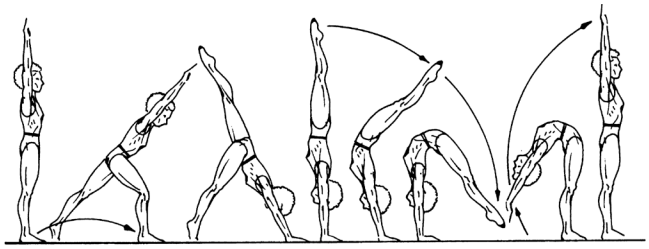


Figure 8.14 Front Limber.

Note: For male performers with a lower degree of flexibility, all back/shoulder flexibility skills (i.e. limbers and walkovers), can pose a greater risk of injury to wrists, the back, and shoulders. Also these male performers will never need to demonstrate some of the extreme flexibility positions later needed by female flyers.

BACK WALKOVER

Stand facing backward in a stretched body position with one foot striding in front of the other, arms overhead against the ears. With arms, head and chest lifting up, lift the lead leg. Then shift the hips forward keeping weight on the front of the support foot, look and reach backwards while opening the shoulders placing hands on the floor. The arms should stay by the ears and eyes looking at the hands throughout. Push up through the shoulders in a split-legged handstand, then shift the weight and step down with the lead leg followed by the trail leg. The performer should pass through the front scale position en route to arriving in a lunge position. (See Figure 8.15)

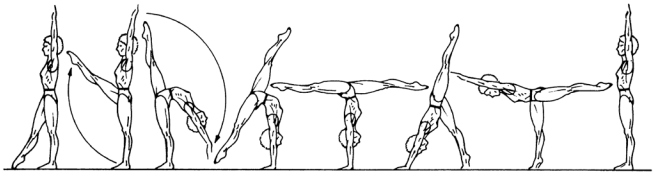


Figure 8.15 Back Walkover.

Note: For male performers with a lower degree of flexibility, all back/shoulder flexibility skills (i.e. limbers and walkovers), can pose a greater risk of injury to wrists, the back, and shoulders. Also these male performers will never need to demonstrate some of the extreme flexibility positions later needed by female flyers.

FRONT WALKOVER

The performer should understand the basic concepts and be able to perform the front limber before attempting this skill. Stand facing forward in a stretched body position with arms overhead against the ears. Step forward into a lunge position. Lift the extended rear leg overhead by pushing against the ground with the flexed leg into a split-legged handstand. The hands should be placed on the floor with fingers apart and pointing forward approximately shoulder-width apart. Eyes should stay focused on the hands. Be sure to keep the arms straight and directly aligned with the torso. Shift the shoulders toward the direction from where you started. The lead leg continues over until it touches the floor. Shift the hips forward onto the lead (support) leg. The trail leg and upper body should lift up and finish on the support leg. The arms should stay by the ears and eyes looking at the hands throughout. Do not attempt to stand up by pulling the arms and/or head forward. This will cause the hips to shift backward and force weight into the lower back region. (See Figure 8.16)

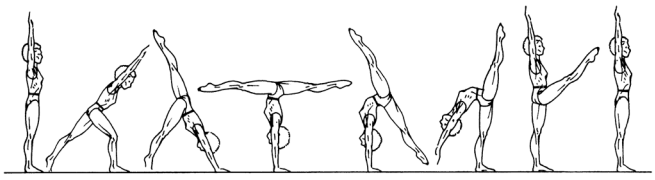


Figure 8.16 Front Walkover.

Note: For male performers with a lower degree of flexibility, all back/shoulder flexibility skills (i.e. limbers and walkovers), can pose a greater risk of injury to wrists, the back, and shoulders. Also these male performers will never need to demonstrate some of the extreme flexibility positions later needed by female flyers.

STANDING BACK HANDSPRING

Stand facing backward with legs slightly apart and arms held out parallel in front of the body. There are several other starting positions with the arms that may also be productive in commencing this skill. Squat backward (off balance) keeping head and chest erect (like sitting in a chair) while swinging arms backward behind the torso. Then immediately swing arms forward and up as performer extends legs—pushing the arms, head and torso backward into a position of tight hyperextension. As the hands contact the floor, fingers (together) should be pointing forward or slightly inward with hands positioned shoulder-width apart. The total body unit maintains a tight hyperextended position through a handstand, extended through the shoulders. The arms should stay by the ears and eyes looking at the hands throughout. Once the hands contact the floor, the performer executes a vigorous "snap-down" action with the legs. Finish with arms, head and torso lifting up, and hips tucked under to a straight standing position. (See Figure 8.17)

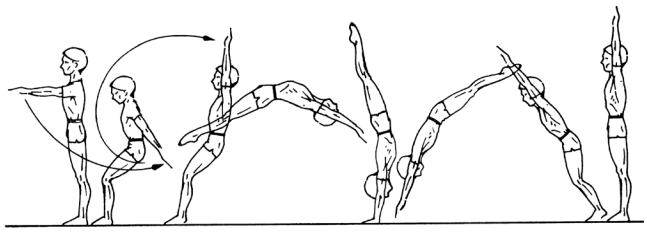


Figure 8.17 Back Handspring.

FRONT HANDSPRING

This skill is even more difficult to perform correctly than a back handspring. Stand with a straight body facing forward with arms overhead next to the ears. Step forward with one leg into a lunge position and forcefully kick the rear leg overhead by pushing off the ground with the flexed leg into a split-legged handstand position. The hands should be placed on the floor with fingers apart and pointing forward approximately shoulder-width apart. Eyes should stay focused on the hands throughout. Be sure to keep the arms straight and directly aligned with the torso. As the hands make contact with the floor, the performer initiates a vigorous push-off the hands and through the shoulders. This "spring" action serves to both lift and rotate the performer in a forward direction. Bring both legs together overhead and continuing over until they touch the floor. The body maintains a tight arch position while airborne and on landing. Finish with the arms, head and chest lifting up, eyes still focused on the hands in the air. (See Figure 8.18)

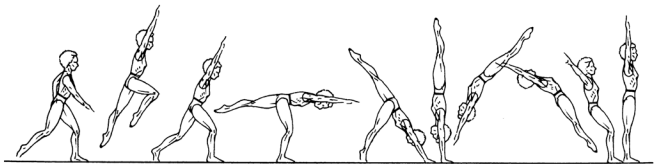


Figure 8.18 Front Handspring.

Note: Once a reasonable level of proficiency has been attained, the front handspring can be initiated from a "hurdle." A hurdle is a forward "skip-step" movement used as an enhancement transition between the step and the actual skill to improve acceleration. When first learning this skill or any series where a run can be performed, it is important NOT TO RUN. Take several steps with a controlled hurdle during the entry. This will improve safety and ensure proper technique is developed.

Variation: front handspring step-out

ADVANCED LEVEL

ROUNDOFF—BACK HANDSPRING

From a "hurdle," execute a roundoff by pushing vigorously with the hands and through the arms and shoulders, quickly snapping the legs down to rotate past vertical (feet in front of hips), snap backward. As the feet contact the floor, the performer executes a forceful extension of the legs and a simultaneous arm throw into the backward handspring with eyes following the hands. See also details under back handspring. **It's important that there is no hesitation out of the roundoff and into the back handspring.** (See Figure 8.19)

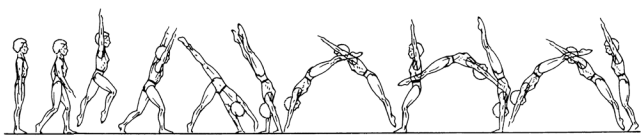


Figure 8.19 Roundoff—Back Handspring.

When first learning this skill or any series where a run can be performed, it is important NOT TO RUN. Take several steps with a controlled hurdle during the entry. This will improve safety and ensure proper technique is developed.

Variations: back handspring—snap backward (for another back handspring), back handspring —rebound (for immediate tucked back somersault)

STANDING BACKWARD SOMERSAULT

Stand facing backward with legs slightly apart and arms held out parallel in front of the body. There are several other starting positions with the arms that may also be productive in commencing this skill. Prepare to jump, bend the legs slightly while swinging the arms backward behind the torso, and eyes continue to look forward as long as possible and chest remains in a vertical position. Then immediately swing the arms forward and upward while forcefully extending the legs against the floor. Continue thrusting the arms, head, and chest upward and slightly back. Once in the air, the body should achieve a full extended position with arms by the ears and the head in a neutral position. Initiation of the tuck position begins with the hips rising upward with the knees bending in order to accelerate the rate of rotation backward. Two distinct techniques can be applied to facilitate the tuck position, grabbing in front or behind the knees. Both are effective techniques, but grabbing in front of the knees requires a higher level of core/abdominal strength for initial success. When the floor becomes visible near the conclusion of the somersault, the legs begin extension toward the floor in preparation for the landing in a standing position. Knees bend to absorb the landing. (See Figures 8.20a and 8.20b)

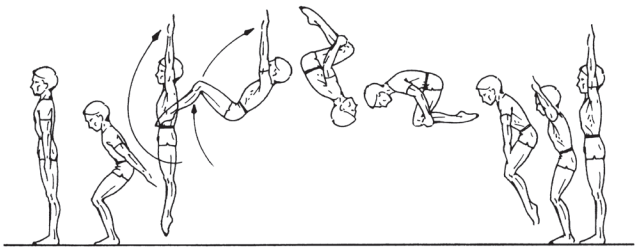


Figure 8.20a Standing Back Somersault (grabbing in front of knees).

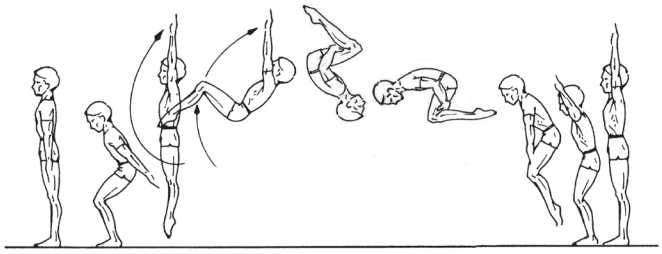


Figure 8.20b Standing Back Somersault (grabbing behind knees).

Performing this skill off of a folding panel mat with a trained spotter is a typical progression. Removing one panel at a time after each successful solo attempt is a common progression.

ROUNDOFF—BACK HANDSPRING—TUCKED BACK SOMERSAULT

A roundoff to 2-3 back handsprings with acceleration should be adequately mastered before attempting to learn this skill sequence. A performer should also to be able to perform a tucked standing back somersault on the floor before attempting this skill sequence.

First practice only the roundoff—back handspring; rebounding up out of the back handspring, reaching up with the arms, head and torso, but not attempting to somersault (i.e., "timers").

In performance of this series, acceleration should occur from the roundoff to the back handspring to somersault. From the back handspring continue thrusting the arms, head, and chest upward and slightly back. Once in the air, the body should achieve a full extended position with arms by the ears and the head in a neutral position. Initiation of the tuck position begins with the hips rising upward with the knees bending in order to accelerate the rate of rotation backward. Two distinct techniques can be applied to facilitate the tuck position, grabbing in front or behind the knees. Both are effective techniques, but grabbing in front of the knees requires a higher level of core/abdominal strength for initial success. When the floor becomes visible near the conclusion of the somersault, the legs begin extension toward the floor in preparation for the landing in a standing position. Knees bend to absorb the landing. **It's critical that there be no hesitation out of the back handspring and into the back somersault.** (See Figures 8.21a and 8.21b)

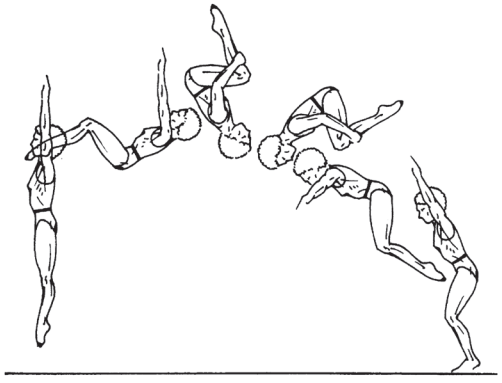


Figure 8.21a

Tucked Back Somersault out of a Roundoff—Back Handspring (grabbing in front of knees).

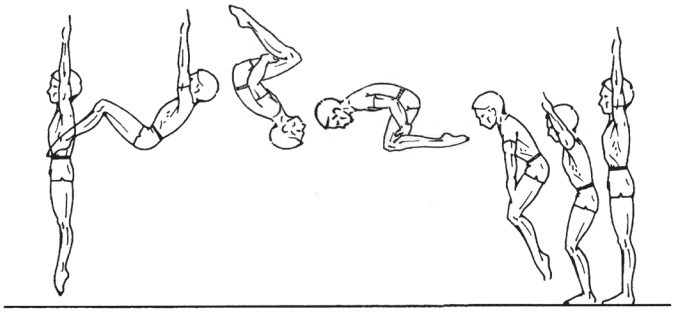


Figure 8.21b

Tucked Back Somersault out of a Roundoff—Back Handspring (grabbing behind knees).

Caution should be applied when teaching a roundoff to immediate tucked back somersault before learning a roundoff—back handspring—tucked back somersault. These two elements have two different roundoff techniques. The roundoff to immediate tucked back somersault requires a rebound after the roundoff, where the roundoff—back handspring—tucked back somersault requires a snap backward with the legs or through vertical after the Roundoff. Some tumblers can see a decline in their roundoff back handspring technique if they perform the roundoff to immediate tucked back somersault too soon in their progressions.

ROUNDOFF—BACK HANDSPRING—PIKED BACK SOMERSAULT

All techniques for performing this sequence are essentially the same as for the tucked backward somersault sequence, except the legs remain straight during the somersault phase and hips continue to bend approximately

90 degrees. It is particularly important to absorb the landing by bending the knees upon contact with the floor. Learning this skill is an important progression to understanding the correct body position for a layout backward somersault. (See Figure 8.22)

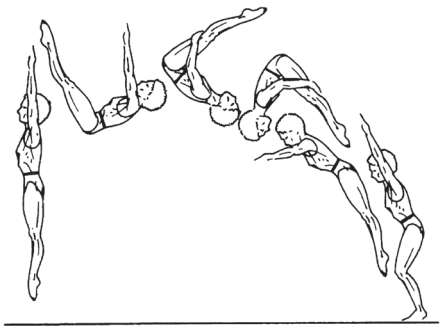


Figure 8.22

Piked Back Somersault out of a Roundoff—Back Handspring.

ROUNDOFF—BACK HANDSPRING—LAYOUT BACK SOMERSAULT

The techniques for executing this sequence are essentially the same as for the tucked and piked back somersault sequences except that the total body unit remains in a fully extended position throughout the entire somersault. A greater amount of backward rotation is required to complete a somersault in an extended position, therefore an improved roundoff—back handspring must be performed with a more dynamic lifting action up and backwards with the arms, head, and torso at take-off. Once the arms lift upward and back, the head must remain in a neutral position and the body should rise to meet the arms while airborne. The arms should be next to the performer's sides during the final airborne phase and bend the knees to absorb the landing. (See Figure 8.23)

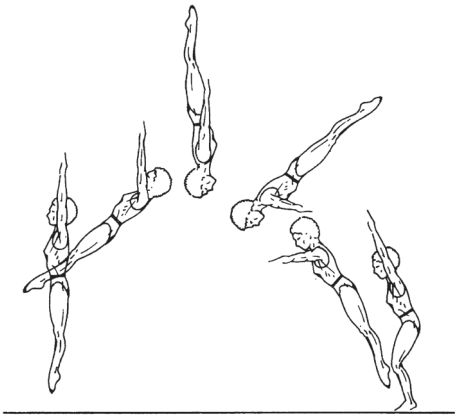


Figure 8.23

Layout Back Somersault out of a Roundoff—Back Handspring.

Mastery of the layout back somersault is a critical progression to safe and effective learning of almost all twisting somersaults (includes arabians, full twisting layout back somersaults 1/1, and double full twisting layout back somersaults 2/1, etc.).

Note: Caution should be applied when teaching a whip back before a tumbler is able to master a layout back somersault (often also the layout back somersault with a full twist). Some tumblers can become confused regarding the correct body position for the layout back somersault when performing whip backs too soon in their progression plan.

REFERENCES

1. George, G.S. (Ed.). (1990, 1997, and 2006 Editions). AACCA Cheerleading safety manual. Memphis, TN: UCA Publications.

2. George, G.S. (Ed.). (1985 and 1990 Editions). USGF Gymnastics safety manual. (1st Ed.). Indianapolis, IN: USGF Publications.

3. Universal Cheerleaders Association. (1984). Tumbling for cheerleaders, A video presentation. Memphis, TN: UCA Publications.

4. Whitlock, S. (Ed.). (1994 and 1998 Editions). USA Gymnastics safety handbook. Indianapolis, IN: USAG Publications.

TUMBLING PROGRESSION GUIDELINES

1. Tumbling should serve as the "basis" for every cheerleading activity.
2. An adequately trained coach/advisor should always be present during any form of tumbling activity.
3. Teaching and learning of tumbling skills slowly and in a progressive manner are fundamental components to success and safety.
4. Always be sure to master basic skills first before progressing to the more difficult ones, and continue to refine and improve those basic skills over time.
5. Artificially lifting a beginning tumbler is potentially dangerous and should not be permitted.
6. An adequate warm-up is essential to safe participation in tumbling.
7. Forward somersaulting skills are characterized by greater risk and are more difficult to master than backward somersaulting skills.
8. Always remember that mats are no fail-safe to injury.
9. Never rely on spotting in place of adequate skill progressions and/or performer readiness.
10. "Improper execution of the somersault" is the leading cause of serious, catastrophic injury and/or death in cheerleading.

Partner Stunt Progressions

By Tony Nash, Greg Webb & Bill Ahern

Cheerleading partner stunts usually consist of a small number of performers working in concert with one another to perform various acrobatic and gymnastics type maneuvers. Properly conducted, it becomes a safe yet exciting activity and certainly contributes to the overall effectiveness of any cheerleading program.

Although similar in concept to individual tumbling and balancing, the activity of "partner" stunts is somewhat unique in that two or more participants are jointly involved in a coordinated effort to attain a single performance. In addition, many partner stunts involve lifting and holding one performer on top of another, thereby significantly increasing one's height from the ground. Consequently, **the potential risks can be somewhat greater than in conventional tumbling and acrobatic activities.** This sometimes precarious interrelationship, perhaps best described as a "sacred trust," places specific requirements on each participant.

Because the success and safety of every partner stunt are dependent upon the coordinated effort of all participants, the importance of adequate preparation, sound planning and good team- work cannot be overemphasized. This includes insuring that **all participants are physically prepared to participate and have been reasonably well-grounded in basic tumbling and balancing activities. In addition, participants should be matched according to size, ability and experience and be taught to develop accurate communication skills. It is vitally important that each participant clearly understand the mechanics, techniques and objectives of the stunt as well as his/her specific safety role in its execution.**

Special attention should be given to each of the preceding chapters in this manual before considering the teaching and/or performing of partner stunts in cheerleading. **(Refer to the Online Appendix- "Qualification Sheet for Partner Stunts".)**

BASIC CLIMBING TECHNIQUES

Because the risk of injury increases with height, even seasoned cheerleaders should be required to demonstrate consistent mastery of climbing and balancing techniques at lower levels before being allowed to attempt similar movements at greater heights. The individual components of each partner stunt should be broken down into their simplest forms, practiced at ground level (or the lowest possible level), and adequately mastered before moving on to the next stage in the progression sequence. Potential mishaps and/or areas of concern specific to each partner stunt should be carefully identified and appropriate steps should be undertaken to insure proper recovery techniques.

Safe execution of basic climbing techniques requires adequate body strength, a keen sense of balance, kinesthetic awareness, and the ability of the participants to maintain the necessary stability between themselves and the ground. In order to help ensure proper balance and stability, the person climbing must be able to keep his/her body weight (center of balance) directly over the base or bases. This is accomplished in several ways:

1) The base (bottom person) must be able to control his/her hips in order to maintain stability and ensure balance. This is done by assuming the proper stance and providing the appropriate resistance to the pressures exerted by the person climbing.

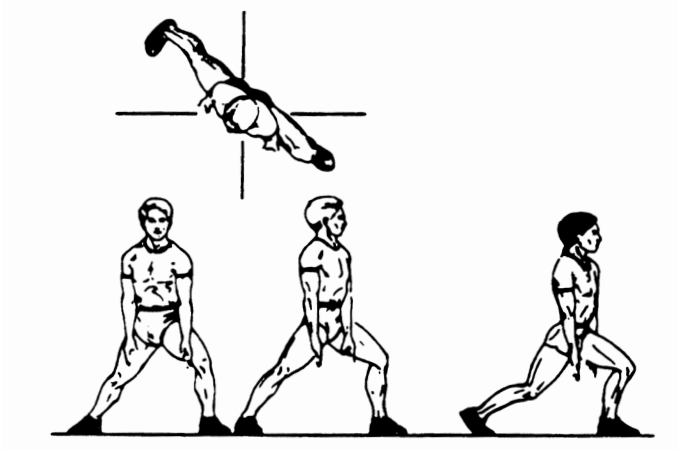
2) The base must be keenly sensitive to any potential falls and/or mistimed dismounts and know precisely what to do. **For example, always release the legs and/or feet of a top person** whenever he/she is in a descending mode (i.e., dismounting as well as falling). Failure to do so could result in serious catastrophic injury, or even death.

3) The top person must know when, where and how to place his/her hands, feet or other body parts onto that of the base person and be able to maintain balance.

4) The top person must also keep his/her hips directly over the base. By flexing and then extending and locking the legs upon execution of the actual mount, both stability and balance are enhanced. Conversely, if the legs remain bent, there is a greater tendency for the climber's body weight to move outside the base, negatively affecting balance.

5) The top person should attempt to distribute his/her weight and force during the climb. For example, if most of the weight is focused on one point, such as on the base's shoulder, then that shoulder will tend to drop causing the base's hips to move in the opposite direction and thereby decreasing the stability of the stunt.

Although specific techniques will be presented for a variety of partner stunts, the aforementioned principles can be better understood using a pictorial demonstration of the lunge and the step-up drill. (See Figures 8.24 and 8.25)



a. *b.*

Figure 8.24

The lunge: a) front, side and top view of good technique; and b) poor technique.

As depicted in Figure 8.24, the base maintains control of the hips by standing in a lunge position with the back leg fully extended and the shoulders facing forward. Any bending in the rear leg or turning in the shoulders tends to initiate rolling of the hips and could cause the base to collapse under pressure.

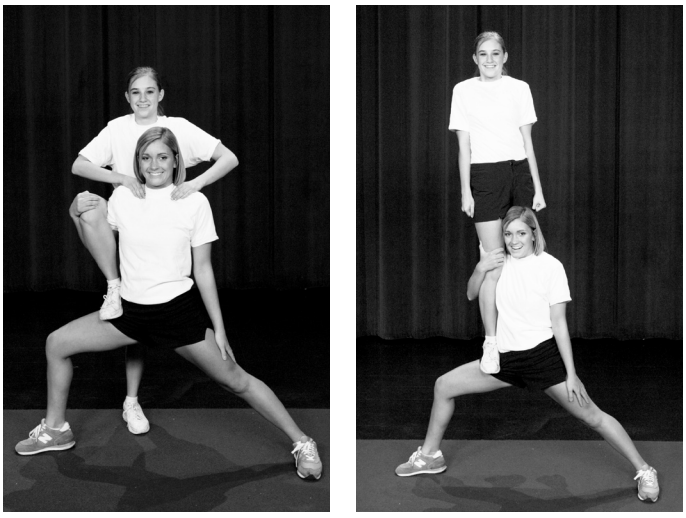


Figure 8.25 Step-up drill.

As depicted in Figure 8.26, the top person is positioned behind and slightly to the side of the base with the hands grasping the top of the base's shoulders. Notice that the step-up foot is securely placed on the upper thigh of the base's flexed leg. By jumping off of the foot on the ground while simultaneously pushing down with the hands against the base's shoulders, the force or pressure of the actual step-up is more evenly distributed, until the step-up leg is locked and the stunt is balanced.

If the top person were merely to step onto the base's leg without any assistance from the jump or hand push, the pressure would be considerable and the base would be more likely to lose stability. Also, if the top person were to bend her leg after having executed the step-up, the hips would tend to move outside the base and the stunt would be unbalanced and likely to fall.

PROGRESSIONS FOR LEARNING PARTNER STUNTS

The following skills represent examples of typical progressions that could be employed safely in the learning of partner stunts:

Step-Up Drill. (Refer to Figure 8.25)

As previously noted, the base person assumes a stable lunge position with the back leg straight and shoulders facing forward. The top person begins behind the base with hands grasping the base's shoulders. Jumping off the ground while simultaneously pushing down on the base's shoulders, the top person steps up and immediately locks the support leg bringing his/her body weight directly over the base. The base holds the top person's thigh and pulls it downward toward the base's body.

Dismount - Top person steps down to the back.

Spotting - From the rear, the spotter holds the waist of the top person while providing a lifting and stabilizing assistance.

Area of Concern - Although this is a relatively safe skill, care should be taken to ensure that the top person has attained a secure footing and does not slip or fall backward.

L-Stand. (Refer to Figure 8.26)

Begin with step-up drill, keeping support leg locked and hips facing forward. Top person raises free leg in a lateral direction and base then supports free leg at the ankle.

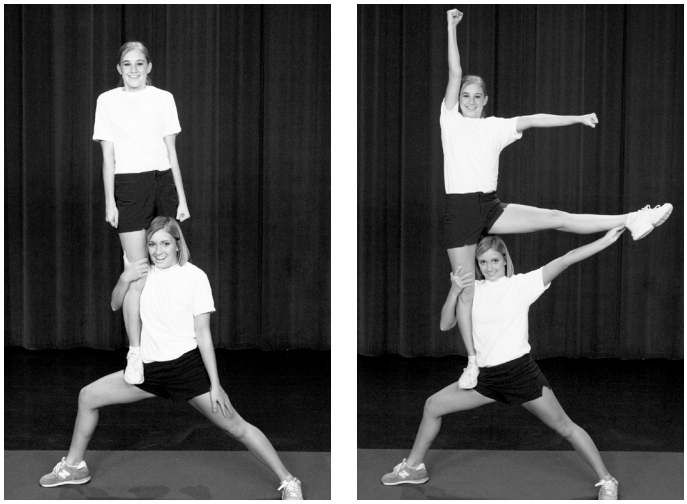


Figure 8.26 L - stand.

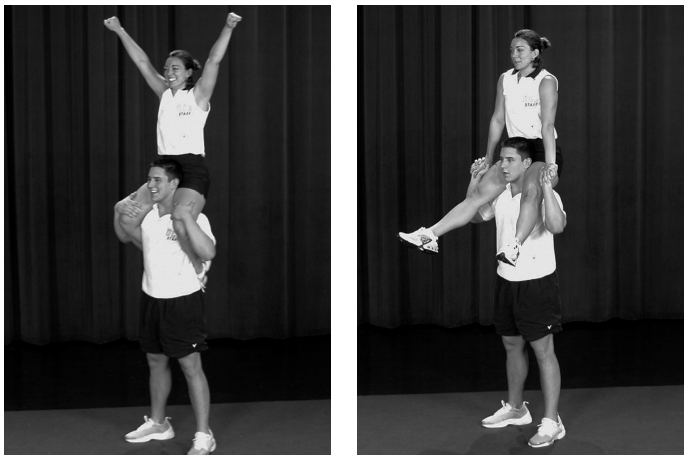
Dismount - Base brings the top person's free leg over head to the front. Top person steps down as base grabs his/her waist.

Spotting - Same as for the step-up drill. The spotter then moves to the "step-up" leg side in order to assist with landing.

Area of Concern - As the top person lifts the leg, the spotter should be prepared to support the top person particularly in the event of falling backward.

Shoulder Straddle. (Refer to Figure 8.27)

Begin in step-up drill. Top person swings free leg to the front and assumes a straddle sit as base extends into a full stance with feet positioned slightly wider than shoulder width apart. Top person immediately wraps legs behind the base while base pulls downward on the top person's thighs.



a. *b.*

Figure 8.27

a) Shoulder straddle; and b) dismount preparation.

Dismount - Base reaches to the outside of top person's legs and grasps top person's hands. On a designated count, the base dips and thrusts upward, shrugging the shoulders and pushing through the arms and shoulders. The top person keeps arms locked and pushes downward. Once over the base's head, the top person brings legs together in a pike position, holds momentarily, and then brings legs down for landing. (Refer to Figure 8.28)

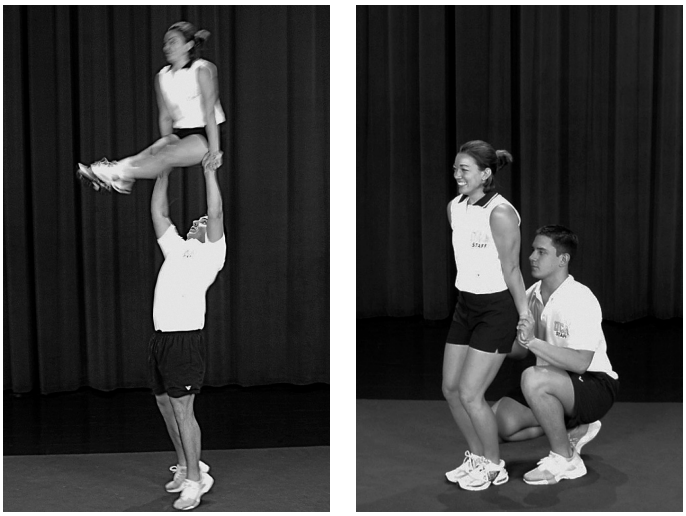


Figure 8.28 Pike dismount.

Spotting - Spotter stands to the side and grasps the top person's wrist with inside hand and the upper arm with the outside hand. Spotter helps maintain balance and then moves slightly forward and pushes upward on the arms to assist with the dismount.

Area of Concern - Should the top person not get enough lift, spotter must be in position to keep the top person's weight off of the base's head. In addition, the base must maintain a secure hand grip with the top person throughout the entire stunt.

Double Base Thigh Stand. (Refer to Figure 8.29)

Both bases begin lunging to the inside. Each base enhances stability by locking the outside arm securely against the extended thigh. Clasping the free hand of each base, the top person executes a modified version of the basic step-up drill by stepping high up onto the flexed thigh of each base in a one-two fashion. Using their inside hands, bases then hold the thigh of the top person and pull slightly downward and inward to enhance stability.

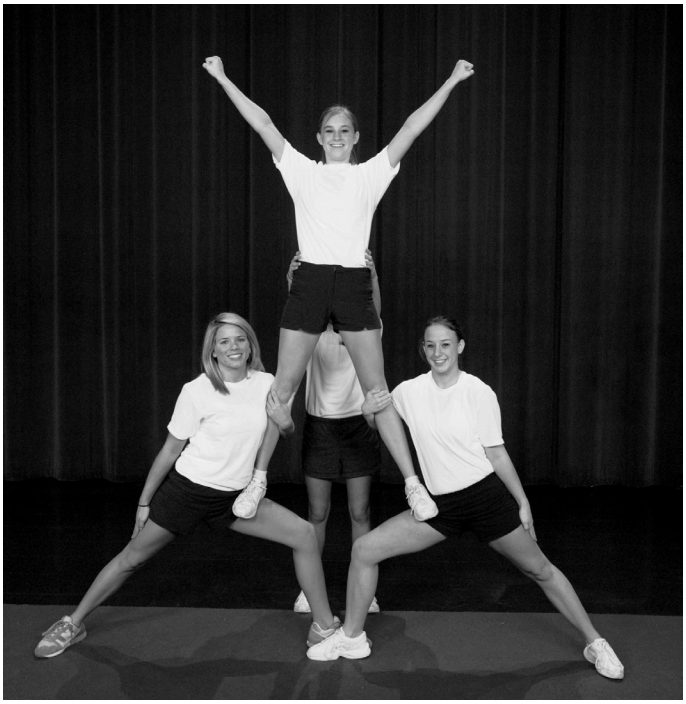


Figure 8.29 Double base thigh stand.

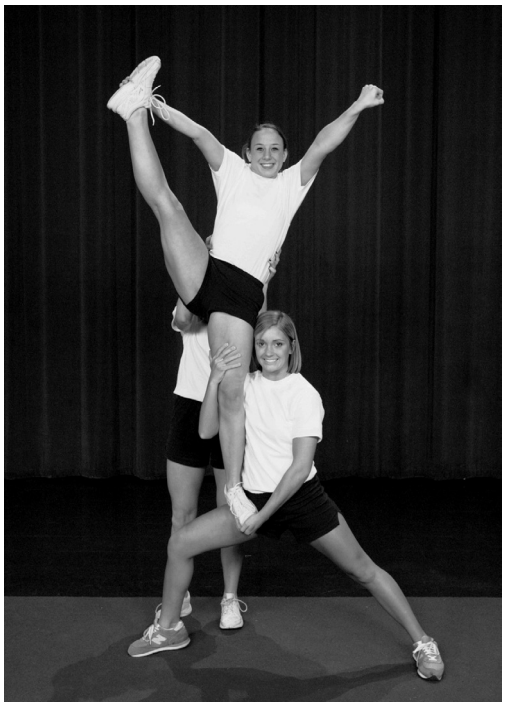


Figure 8.30
Side thigh stand with heel stretch.

Dismount - Top person grasps the outside hands of the bases and steps down to the front.

Spotting - Spotter stands directly behind top person and holds the waist.

Area of Concern - If the stunt becomes unstable, the bases must immediately release the legs so the top person will not fall head first.

Side Thigh Stand with Heel Stretch. (Refer to Figure 8.30)

Base assumes a secure lunge position. Top person steps up and locks out with the inside leg. Without turning the shoulders, base immediately uses outside hand to hold the toes of the support leg and inside hand to secure the inner thigh. Notice that the base's inside hand is positioned above the top person's knee and is pulling slightly downward to enhance stability. Keeping the support leg locked, the top person performs a heel stretch.

Dismount - Top person lowers raised leg and steps off to the front as base grabs at the waist.

Spotting - Same as for the L-stand.

Area of Concern - Same as for the L-stand.

Walk-Up Shoulder Stand from Lunge. (Refer to Figure 8.31)

From a lunge position the base extends the arms and grasps the top person's hands. The top person steps up high on the lunge, jumps off of the ground and immediately locks the leg while pushing down through the base's arms to take weight off of the feet. The base locks the arms and as the top person steps up onto the shoulder, locking the leg, the base pushes upward with the arms and shoulders and stands up on the lunged leg with the feet slightly wider than shoulder's width apart. After the top person's second foot is positioned on the other shoulder, the top person pulls his/her heels together against the base's head and tightens the buttocks to improve stability. The base then releases one hand at a time with the top person and immediately grasps the top person's calves, pulling downward toward his/her head.

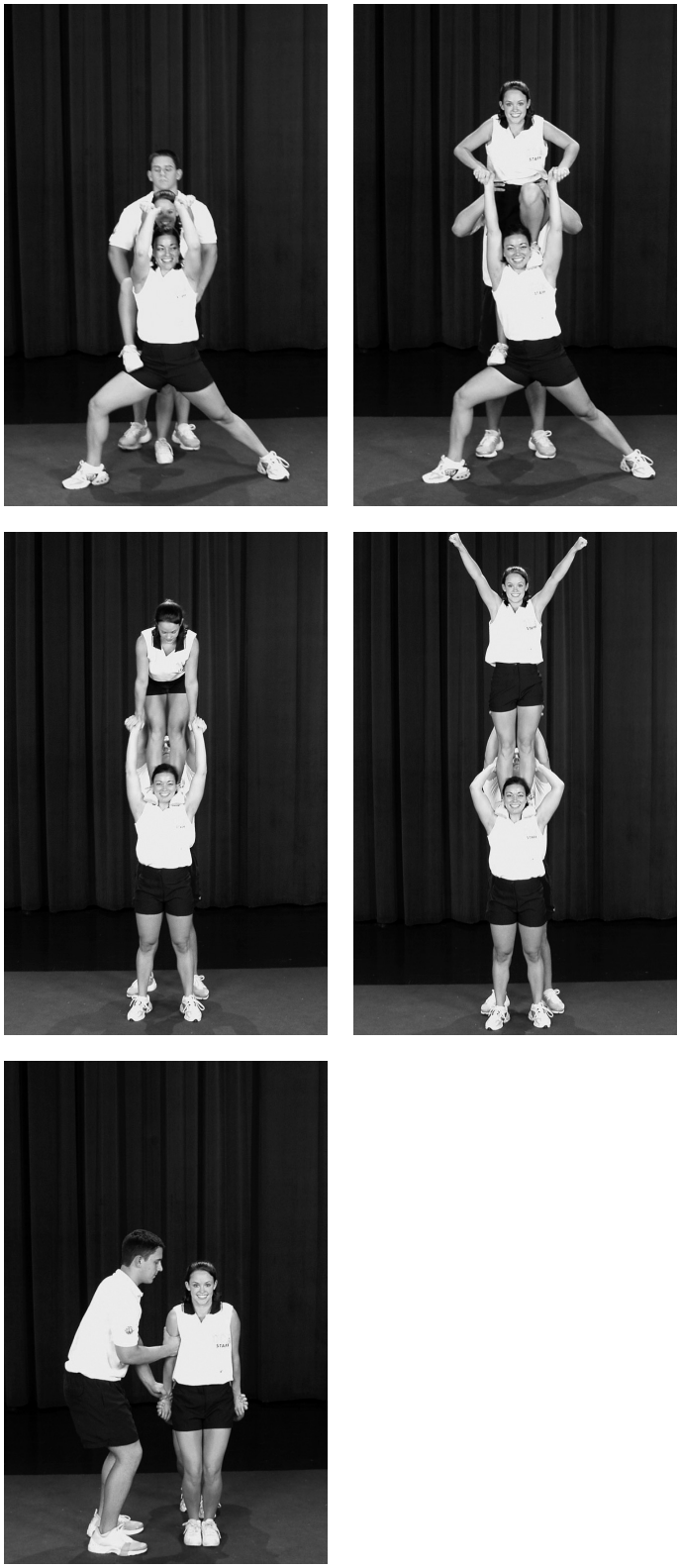


Figure 8.31
Walk-up shoulder stand from lunge.

Dismount - Without bending the legs, the top person grabs the base's hands, pushes through the arms and steps off the front.

Optional Dismount - The top person steps forward off of the base being careful not to push backward with her feet in the process. The base catches the top person by the waist and assists with the landing.

Spotting - The initial spot begins behind the stunt. As the top person stands up, the spotter then moves to the side in preparation to assist with the dismount. (Refer to Chapter VI - Section 3 "Spotting in Partner Stunts and Pyramids" for a more in-depth description of this spotting technique.)

Area of Concern - If the top person attempts to "jump" off rather than "step" off during the dismount, it is possible to push the base completely off balance, causing the top person to fall head first. Also, because of the increased height, the spotter should maintain constant physical contact with the top person throughout the entire mount phase.

In addition, the base must strive to keep arms locked and push against hands of the top person. If the base fails to provide adequate arm support, the top person's shoulders could drop lower than his/her hips, increasing the potential for a head first fall.

Walk-Up Double Base Shoulder Stand. (Refer to Figure 8.32)

Base 2 begins in a lunge position beside base 1 (who stands erect with feet straddled slightly more than shoulder-width apart). Both bases must keep outside arms directly overhead and locked until the mount is complete and the top is stable. While grasping the bases' outside hands, the top person pushes down through the arms while stepping first onto the flexed thigh of base 2, then onto the flexed forearm of base 1, and, after allowing the bases to grab the feet, finally onto the bases' shoulders. The bases support (palms up) the top person at the balls of the feet. The top person's heels are resting on the bases' shoulders.

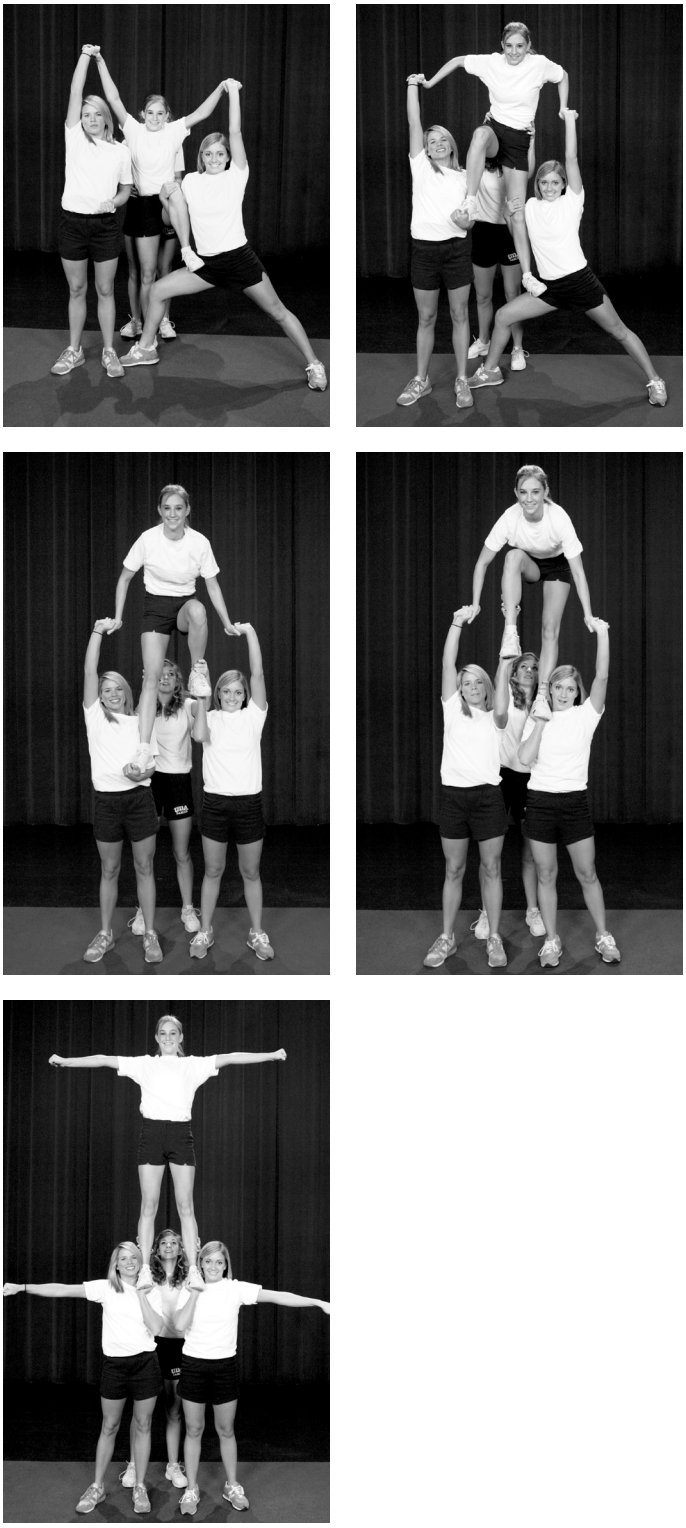


Figure 8.32
Walk-up double base shoulder stand.

Dismount - After grasping the bases' outside hands, the top person pushes down through the arms and swings forward. Keeping the outside arms up and locked, the bases then grasp the top person under the triceps (upper arms) as he/she lands.

Spotting - Same as the walk-up shoulder stand.

Area of Concern - Same as the walk-up shoulder stand.

Shoulder Splits from Lunges. (Refer to Figure 8.33)

Begin in double based thigh stand. After determining the direction of the split, bases extend and lock outside arms. Bases must keep arms locked and close to the head throughout the stunt. Base 2 releases the thigh, reaches in front of the leg, and grasps (palm facing upward) the shin of the top person. Base 1 simply slides inside hand down to the other ankle. Maintaining the outside hand grip, the trio dips (on a designated count) and the top person lifts into the split position while pushing downward through the arms. Base 1 (holding front leg) steps forward with inside leg as base 2 (holding back leg) steps backward with inside leg. Keeping downward pressure with the arms, the top person lowers herself into the final split position.

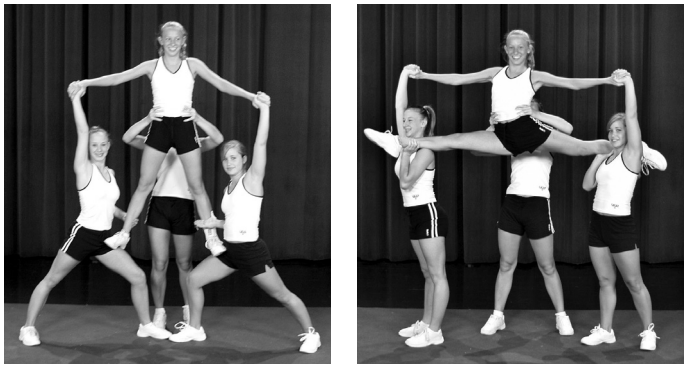


Figure 8.33 Shoulder splits from lunges.

Dismount - On a designated count and while keeping arms locked, the bases dip, pushing upward on the top person's legs and immediately turn to the inside to support her triceps (upper arms) when landing. The top person pushes through the arms and brings feet together for the landing.

Spotting - In the back, holding the top person's waist throughout the stunt.

Area of Concern - Because of the pressure exerted on the hips, it is imperative that the top person have adequate flexibility in this region. In addition, the top person must always maintain hand contact with the bases in order to avoid falling head first.

Pick Up to Shoulder Stand. (Refer to Figure 8.34)

The "post" extends their hands to the top person standing behind them. The post stands in a forward lunge. The top person takes hands with post and stands with her feet together. The base bends down and grips the top person's ankles. On designated count the trio dips and the top person jumps off the ground and transfers her weight from

her feet to the post by pushing down through her arms and lifting her hips. The post steps backward toward the top person while locking her arms out to give resistance. The base uses her legs and arms to lift the top person to her shoulders. Once the top person has her balance and the base shifts to a shoulder stand grip, the top person can stand up, letting go of the post's hands.

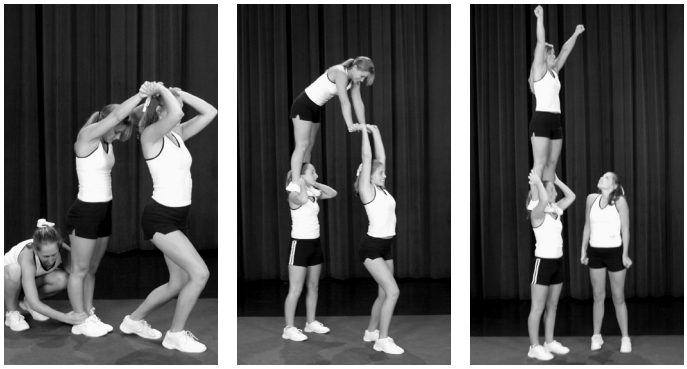


Figure 8.34
Pick up to shoulder stand.

Dismount - Same as walkup shoulder stand.

Spotting - Spotter will be at the side of the stunt with one hand on wrist of post and the other hand under shoulder of top person

Area of Concern - Post needs strength to keep arms locked to give resistance to top person. Top person needs to lift at the hips while keeping weight down through the locked arms of the post. This is the first stunt shown in which the three participants have to have timing with each other throughout the movement.

Double Base Elevator. (Refer to Figure 8.35)

Bases begin by facing each other in a semi-squat position with hands cupped. Top person places her hands on bases' shoulders. While supporting most of her body weight in her hands, the top person jumps into bases' hands and dips in concert with bases. Top person pushes downward with hands, lifts with the shoulders and extends legs as bases raise her to shoulder level position. It is imperative that the top person also squeeze her legs together (approximately shoulder-width apart) as she is raised to the shoulder level. Top person then assumes an extended body shape.

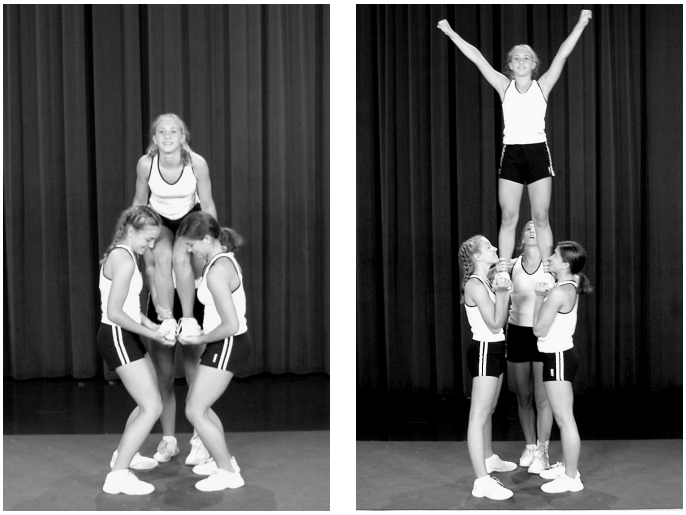


Figure 8.35 Double Base Elevator.

Dismount - Same as double base shoulder stand.

Optional Dismount - Cradle (see Chapter VI – Spotting Partner Stunts and Pyramids).

Spotting - Same as double base shoulder stand.

Area of Concern - Bases must keep backs straight with shoulders directly over the hips and top person should concentrate on lifting with the shoulders to stand rather than pushing with the feet and legs.

Elevator Extension. (Refer to Figure 8.36)

Begin in the ending "elevator" position. On a designated count, both bases dip and then extend and lock arms while pressing slightly toward each other. During this skill, bases should be close to each other with as little space as possible between them. During this time, the top person keeps her legs and hips extended and locked while reaching upward with her arms. Top person is balanced while assuming a fully extended body shape.

Optional continuous mount – Once proficiency in the "extension" position has been demonstrated, this stunt can be performed by moving from the elevator loading position directly to the extended position.

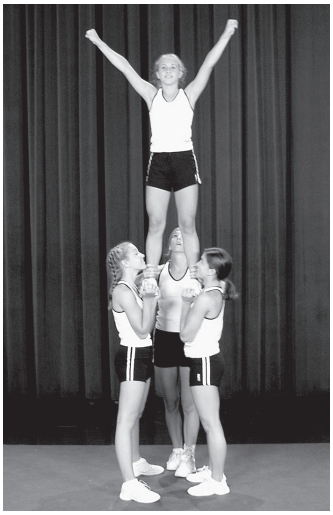
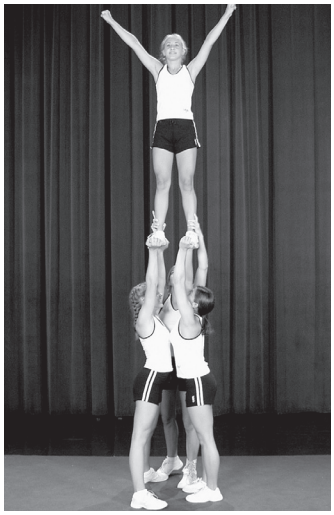



Figure 8.36 Elevator extension.
Spotter required for high school level.

Dismount - Bases lower top person to the "elevator" position and top person then dismounts as in the Double Base Shoulder Stand.

Optional Dismount - Cradle from the extended position.

Spotting - At least two spotters (front and back) are recommended until this skill is mastered. Refer to Chapter VI "Spotting for Partner Stunts and Pyramids" for a more in-depth description of this spotting technique.

Area of Concern - If the bases' timing of the "extension" is not properly synchronized, the top person may be thrown off balance and fall. Also, because of the additional height involved, extensive spotting should be used, particularly during the learning phases.

Cradle Reload. (Refer to Figure 8.37)

For cradles, especially transitional cradle stunts, it is important that the bases pop the cradle to the maximum height in order to give themselves time to prepare for the cradle and to begin the movement of the reload or transition technique. The bases and top person should always use proper technique described in the double base elevator. As the bases absorb the cradle with their arms and legs at the knees, it is important to keep their shoulders up. At this point, they should begin driving the top person up and out of the catching position.

The main and secondary base should start to help the top person direct their shoulders up and assist the hips to be back in line with the two bases for the reload. The back spot will need to assist the top person by catching underneath the arms in a cradle position. They must then control and lift the top person's shoulders and assist back into the loading position. As the feet of the top person come underneath and into the load position, the main and secondary bases will grab the feet and should arrive in the same position as the loading position similar to the double base elevator.

The back spot should arrive in the loading position while initially making contact with the top person at the hip/waist area. As the top is extended, the back spot can keep arms up and make contact with the ankles of the top person to help with keeping the feet in close. The top person must get into a proper loading position by keeping the arms straight on the shoulders of the bases holding their own weight; this will also help keep the weight out of the feet while getting them back into the loading position. The top person must concentrate on keeping their feet close and knees together. Once the cradle reload transition has been performed, from there, the technique is the same as an elevator to shoulders or extension.



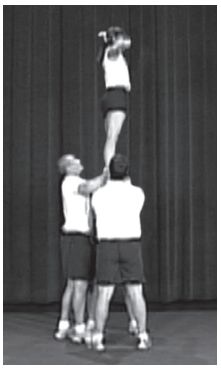


Figure 8.37 Cradle reload.

Dismount - Same as elevator.

Spotting - Same as elevator.

Area of Concern – The top person must be able to lift to get shoulders back in a direct line with the main and secondary bases from the transition to the reload position. Also, the top person must keep both knees and feet close together as to not push the bases out in the movement. The back spot must be able to assist the top person by lifting the shoulders out of the cradle to put the top person's shoulders in line with the bases.

Reload. (Refer to Figure 8.38)

Skill transition will start in elevator or extended position. Both main base and secondary base will maintain contact with the top person's feet and give a timing prep so that the top person knows the transition in beginning. Both bases will begin to bring top person back towards the load in position maintaining continuous contact with the top person's feet as they lower towards the initial loading position. Both bases need to remain close so to keep the top person's legs close together and absorb with their legs and not let their arms bend straight at the elbow.

From there, the bases will use the momentum from their legs and lift up through the shoulders to the stunt being performed. The top person needs to lift with the shoulders as they are being lowered to the load in position, making sure to keep the legs straight until the bottom of the transition. The top person will place the hands on the shoulders of the bases making sure to bend at the waist at the bottom of the performed skill and slightly bending at the knees and keeping the head and shoulders up throughout the movement.

At the bottom of the transition, the top will push off the bases shoulders and begin lifting through the shoulders as they stand and straighten out the legs towards the top of the stunt. The top person needs to concentrate on lifting through the shoulders and keeping the feet close together while straightening the legs going in an upward direction to the specific skill.

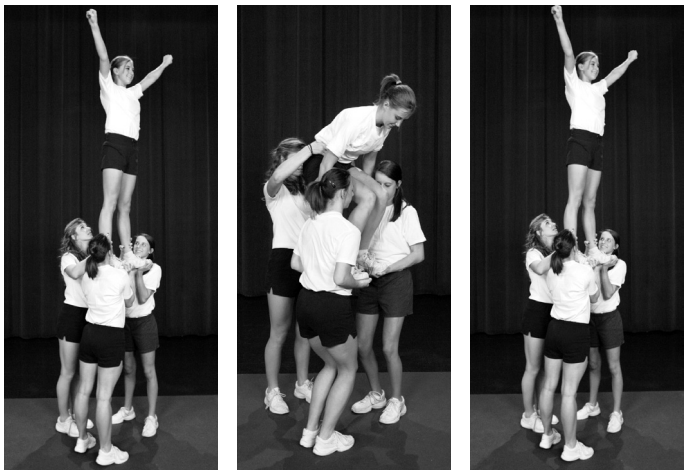


Figure 8.38 Reload.

Dismount - Same as elevator.

Spotting - Same as elevator.

Area of Concern - Top person must keep feet in close together but not let their knees come in close together which will push the feet out. Timing on the prep to begin the transition must be correct for all involved in the stunt.

Walk-in Elevator (extension). (Refer to Figure 8.39)

Bases (main base, secondary base, and back spot). Main base and secondary base start facing each other in a semi-squat position. The back spot will start behind the top person slightly offset to the right of the top. The main base will have hands cupped on the toe and heel of the top person. Secondary base will grab wrist of main base with front hand and have the back hand cupped between the main bases two hands grabbing the midfoot of the top person.

The top person will place foot in the hands of the two bases and place hands on the back shoulders of the main and secondary base. The back spot will grab the ankle of the foot in the bases hands and the other hand will go under the hip of the top person. The top person will jump off the ground off of the back foot while pushing through the arms and lifting with the shoulders as all bases lift towards the middle standing as fast as possible. As the top person nears the top of the jumping movement (shoulder height when first learning and then extended once the technique is learned) the secondary base will release the main bases wrist and the foot of the top person and grab the top person's free foot.

The top person will let secondary base grab the free foot and not attempt to place the foot in the hands of the secondary base. The back spot drives through the hips of the top person using their legs and shoulders to provide the lift. As the performed skill moves in an upward direction, the back spot will release the hips and grab the ankle at the highest point helping assist the bases with keeping the top person's legs close together (approximately shoulder width apart).

Once this technique is mastered from a stationary position, the top person can start from a step back, walking in by stepping with the left foot, taking a skip step to place the right foot in the hands of the bases, and the entire group follows the rhythm of that step to dip and continue to the elevator.

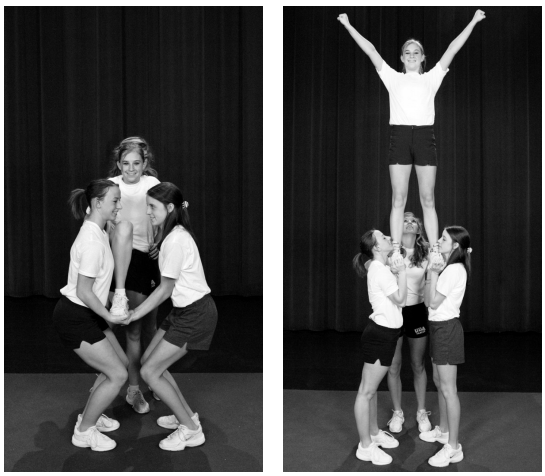


Figure 8.39
Walk-in elevator

Dismount - Same as elevator.

Spotting - Same as elevator.

Area of Concern - Driving the hips up by the third base/spotter to get top person in line with bases. Timing of all participants as the stunt comes off the ground. Timing of secondary base re- leasing wrist of main base and getting control of other foot of top person. Top person lifting

shoulders throughout stunt and not attempting to place her free foot into the bases hands. Bases ex-tending through shoulders throughout stunt.

Double Base Liberty. (Refer to Figure 8.40)

Begin in a double base extension with an elevator to shoulders post beside it for support. The arms of the top persons in the stunts should be overlapping to provide support and balance. The top person in the extension should slowly bring her feet together while shifting her balance to the inside foot. Once the balance has shifted, the secondary base can shift the grip (one hand at a time) to the inside foot. While keeping the support leg straight, the top person pulls the outside foot into a stag position. It is important to keep the body line straight, to avoid drifting to one side.

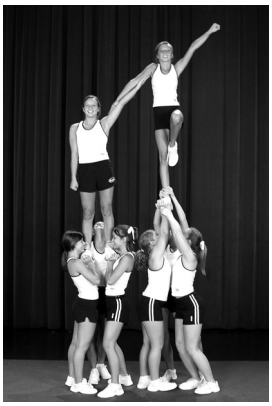


Figure 8.40 Double base liberty.
Spotter required for high school level.

Dismount - The top person and bases return to extension position. The bases then lower the top person to elevator position and the top person then dismounts as in the double base shoulder stand.

Optional Dismount - Cradle from the ending liberty position; don't drop stay leg and don't bend support leg

Spotting - At least two spotters (front and back) are recommended until this skill is mastered.

Variation - Once the liberty is mastered with a post, the top person can slowly release the support arm to become free- standing.

Area of Concern - Same as double base extension. While most principles are the same, the liberty cradle is a bit different from double base extension cradles

Walk-in Liberty. (Refer to Figure 8.41)

Participants will start as they would for a walk-in elevator. On a designated count, or following the steps of the top person, all will dip and begin the upward movement. Top person keeps weight in arms and, as the stunt goes up, will start to straighten support leg while lifting shoulders and rib cage. Toward the top of stunt, top person will pull other leg into stag position (keeping leg parallel to ground with knee pointing forward). Main base and second base will drive up toward the middle and second base will roll hand around the wrist of main base. Bases will keep foot of top flat. Third person will push the hips of top into line with the bases and will then help to control ankle of support leg.



Figure 8.41 Ground-up liberty.
Spotter required for high school level.

Basket Toss. (Refer to Figures 8.42, 8.43 and 8.44)



Figure 8.42



Figure 8.43



Figure 8.44

Caution! This skill should not be attempted until the performers have mastered the double base extension with a pop cradle dismount.

The bases interconnect wrists, with each base holding their own left wrist with their right hand (See Figure 8.45) and bend at the knees. It is important for the bases to stand close to one another and keep their backs in an upright position. The third base/spotter should assist

the top person at the waist until she is in the basket, then provide support under the bases' grip. The top person places her hands on the shoulders of the bases and, supporting her weight with her arms, places the balls of her feet in the "basket" of the bases' hands. **The top person should refrain from assuming a deep "squat" position in the basket.**

Following the timing of the top person, the bases dip with their legs, then stand and extend their arms upward in a smooth, fluid motion. Once the arms have become fully extended, the bases should remain in a "catching" position with the arms reaching up toward the top person. (See Figure 8.43)

As the bases extend, the top person should push through the arms and lift the body to a standing position, cautious to keep the body upright. The top person should not lean back with the shoulders to a cradle position until the full height of the toss. The first skill for the top person should just be a straight ride with no additional skills. This should be mastered before proceeding to variations such as a toe touch, twists, and for college level, flipping skills.



Figure 8.45

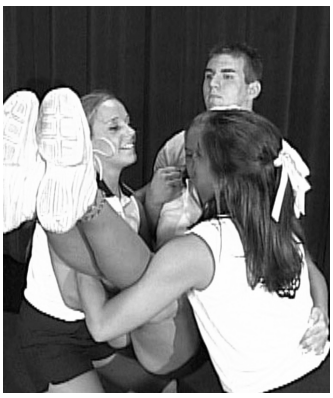


Figure 8.46

Cradle catch position.

Dismount - The top person should remain tight in a cradle position, with the arms opening in a "T" position to help support herself in the cradle catch. As she lands in the cradle, the top person should wrap her arms around the bases' shoulders to help support her weight. (See Figure 8.46) The bases should make contact with the top person as high as possible, with one arm under the thighs and one arm under the middle back of the top person. The bases should bend their legs to cushion the landing. **Bending at the waist should be avoided!** The spotter standing behind the skill should catch the top person with both arms underneath the shoulders at the highest point possible.

Variation - Once the basket toss is mastered, the top person may perform a skill and/or stunt in the air prior to the cradle catch. This skill should be demonstrated to the coach before attempting the skill in the basket toss.

Basket toss skills have specific restrictions based on the discipline and age level of the participant. Be sure to reference the appropriate rules for your team.

Spotting - At least four spotters are recommended until this skill is mastered.

Areas of Concern - The bases and spotters should always be aware of the position of the top person and make any necessary adjustments to move underneath her for the catch. When loading in, if the top person "squats" on the basket or leans back with the shoulders too early, there is a tendency for her to move backwards over the spotter's head. Special attention should be paid to the top person's position in the basket before performing the skill.

Another area of concern is the position of the bases. The bases should be close enough to each other to safely catch the top person without having to reach forward or bend at the waist. If the bases stand too far apart, or do not make contact with the top person as high as they can reach, there is a risk of the bases hitting heads.

ADVANCED SINGLE-BASED LIFTS

Advanced partner stunts are similar in both balancing and climbing techniques to that of the lower level partner stunts. Although the concepts of balance and control are the same, the interrelationship between the top person and the base is further developed. **The primary role of the top person is to "stay tight" thereby permitting the base to balance the stunt; adjusting for balance is probably the hardest and most important part to learn.**

For the sake of convenience and clarity, advanced lifts can be subdivided into four (4) basic categories: **A) Press Stunts** (those involving 1 and 1/2 persons high); **B) Walk-in Stunts; C) Toss Stunts**; and **D) Extended Stunts**.

A) WALK-IN STUNTS

Walk-in stunts allow the top person to be lifted in continuous motion from the ground into the stunt without being released by the base and caught again in the stunt. Walk-in stunts are considered to be more advanced than press stunts, but not as advanced as toss stunts. Timing between the base and top person is very important to the successful completion of the stunt. The ability of the base to balance the top person is still required.

Walk-in Drill. (Refer to Figure 8.47)

This is to prepare participants to use walk-in technique as a way to load into stunts. Base will bend at the knees, keeping the head and shoulders in an upright position. The arms are bent at the elbow and sitting on the thighs. One cupped hand is placed on top of the other cupped hand (depending on which way you are walking in). The top person takes a one prep step placing one foot into the hands of the base (whichever hand is on top that is

the foot that should go into the hands) and the hands of the top will be placed on the shoulders of the base with the top person looking slightly down the back of the base.

Prepping off the ground, the top and the base begin standing up into the stunt. The top person pushes off the shoulders of the base after prepping off the ground and begins lifting shoulders while looking straight ahead. The base follows the pace of the top and gives resistance with his/her arms to the top person's foot as they begin to stand up through the stunt. The base takes the top straight up to the tallest point they can reach and then gives resistance as the top person comes back to the starting position with her hands back on the shoulders of the base.

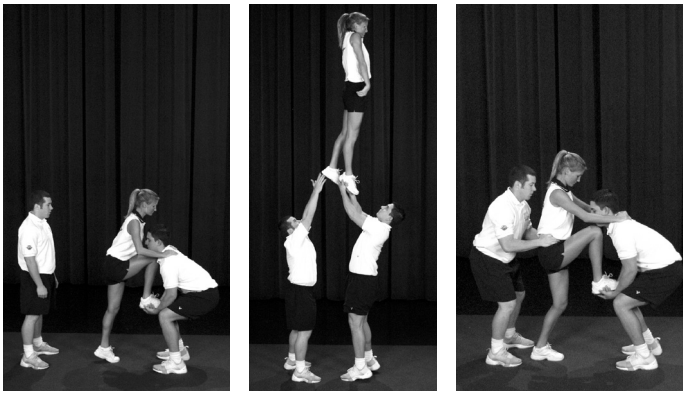


Figure 8.47 Walk-in drill.

Dismount - There is no dismount because it is an up and down drill.

Spotting - Spotter is at the side as the person walks in and as the top comes back toward the ground the spotter moves into position to grab at the waist of the top person.

Area of Concern - Top person needs to lock out the step-in leg at the same pace that the stunt is being lifted off the ground. Top person needs to stand straight up over the base and not push away as the stunt goes up in the air. Base needs to give resistance to the top person as she steps- in and the stunt begins to go up toward the top and then the base must give resistance as the top person is lowered to the ground.

Walk into Hands (Refer to Figure 8.48)

The base and top will use the walk-in drill technique. As the top person's feet get to shoulder height on the base, they will begin to half turn which will position the top person in a forward facing mode. The top will keep the free foot in close to the foot in hands. Throughout this skill the top person should be lifting with her shoulders and expanding the rib cage. As the top gets up around shoulder height the base will begin to turn the top person using the foot they have in hand. The base should drive the top person up above his/her shoulder height and begin to spot the other foot. The base should grab the other foot and then control the top person as they lower them to shoulder level.

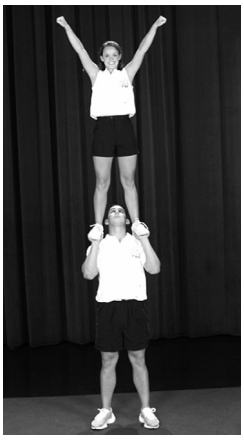


Figure 8.48
Walk into hands.

Dismount - Cradle using same technique as from an elevator except that the top person will reach both arms toward the one base and the base will turn out from under the top person after having popped the top person into the air.

Optional Dismount – Base can also pop the top person directly back to the ground. Top person should lift up during the descent and keep arms in close to her body reaching for the wrists of the base. The top should give resistance through the wrist of the base and should protect herself as she lands back on the ground. Base should pop top person straight up. Do not throw feet out away from body. Base should reach up and get a hold of waist/lower back area of top person and give resistance as they come back to the ground.

Spotting - Same as on walk-in drill

Area of Concern - Top person should not rush the turn and also should not attempt to place the free foot into the hand of the base. The top should let the base spot the foot, grab it, and place it in the appropriate position. The top person should always keep the head and shoulders up and not look down. Base needs to drive the top person up above the shoulder level height allowing sufficient time to spot the other foot. The base should then give resistance as he/she positions the top person at shoulder level.

B) TOSS STUNTS

Toss stunts are considered to be more advanced and more difficult than press stunts, particularly in terms of balance and strength. At this level of difficulty, a special sense of coordinated timing and proper body leverage

must be developed between partners in order to insure successful performance. Just as a good roundoff is essential to any backwards tumbling pass, so too is a good "toss" a fundamental ingredient to success in every toss stunt in cheerleading. For these reasons, let's take a closer look at the fundamental techniques involved in the "toss" for the top person as well as for the base.

The Toss

Top Person - Stand directly in front of base with both feet together and hands holding the base's wrist. On a designated count, raise to toes and dip, jumping hard. The forceful jump should be directed slightly backward into the base with hips positioned slightly in front of shoulders (do not pike). At the top of the toss, push off of base's wrists while maintaining a hollowed position in the chest and shoulders. While in the air, keep legs locked and hips extended. The top person's total body unit should be in a vertical position (with shoulders directly over hips) at the peak of the toss.

Base - Stand directly behind the top person with hands grabbing waist and legs bent slightly. Dip in concert with top person. It is imperative to the development of "good timing" that the base closely follow the top person so that the force of the actual toss compliments the top person's jumping action. If the base attempts to lead (initiate the toss too soon), he will lift the top person using only his back and arms rather than actually tossing her at the appropriate time using his legs, back, shoulders and arms. As the arms fully extend, the base "flicks" his wrists while top person pushes off and lifts with the shoulders.

Toss To Hands. (Refer to Figure 8.49)

Top Person - Using the proper tossing technique, the top person lands in hands of base with her feet approximately shoulder-width apart, legs locked, body tight with shoulders and core slightly hollowed. Eyes should be fixed straight ahead, never looking down as this will cause the shoulders to drop.

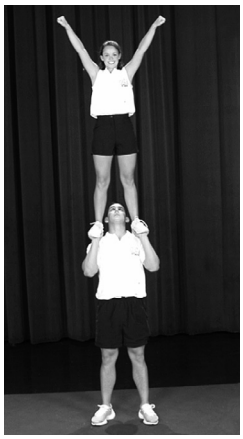


Figure 8.49 Toss to hands.

Base - After the toss, spot for the feet and bend legs slightly during the actual catch. Keep elbows next to body.

Dismount - Cradle.

Spotting - Use two (2) spotters (front and back) during the learning phases of this stunt.

Area of Concern - In the event of loss of balance, base should immediately release the top person's feet and attempt to grab her upper body, otherwise the top person might fall head first.

C) EXTENDED STUNTS

Over-the-Head Stunts are the most difficult of the advanced co-ed partner stunts. Consequently the use of at least two spotters should always be employed until the skill is mastered. Again, learning to balance effectively is the key ingredient to success. Always remember that **any attempt on the part of the top person to balance the stunt actually counteracts that of the base and should be avoided.** The base must be allowed to balance the stunt alone. The top person simply needs to concentrate on keeping hips aligned with shoulders, body tight and legs locked.

For obvious safety reasons it is imperative that this performance interrelationship between the top person and the base be understood and demonstrated adequately before attempting any of the advanced stunts. **Ensuring that the base alone acts to balance the stunt can be facilitated in several ways:**

1) The base should be taught to constantly watch the top person's hips for any irregular shift in balance and make corrections accordingly;

2) The base must learn to make these corrections by adjusting his stance, counterbalancing the top person's feet, or both;

3) The top person must learn, through mastery during stunt progressions, to maintain the proper body position, affording the base more control over the balance; and

4) The top person and base must be able to judge when it is more prudent to dismount safely than to continue trying to balance the stunt. The dismount should be preceded by a vocal communication with the other person so they can act in unison to allow a safe dismount, either to a cradle catch, or a controlled, assisted dismount to the ground.

It is recommended that each extended skill be mastered using a "press" from a "toss to hands" before attempting to toss the skill directly from the ground.

Press to Extension. (Refer to Figure 8.50)

Top Person - Begin in toss to hands position. Top person stays tight keeping hips and legs fully extended while lifting slightly with the shoulders.



Figure 8.50 Press to extension.
Spotter required for high school level.

Base - On a designated count, dip smoothly with legs and push through shoulders, locking arms. Press straight upward with the arms (slightly in front of the head) and look up to maintain constant visual contact with the top person.

Dismount - Cradle. Keeping arms locked, base dips, shrugs with the shoulders, and does a quarter turn towards the top person in preparation for the cradle catch.

Spotting - Two spotters (front and back) are recommended during the learning phases of this stunt.

Area of Concern - If the top person places too much weight on the toes, the stunt will tend to fall forward. Also, be sure that the base keeps the top person's feet relatively close together during the lift.

Liberty. (Refer to Figure 8.51)

Top Person - Begin in toss to hands position. As base presses upward, lift left foot and stag, placing it to the side of the right knee. It is important to keep support leg and hips locked tightly to prevent them from cocking to one side. This is the most common mistake made and the basic cause for drifting to one side. Shoulders, chest, and hips should be slightly hollowed as in the Extension.

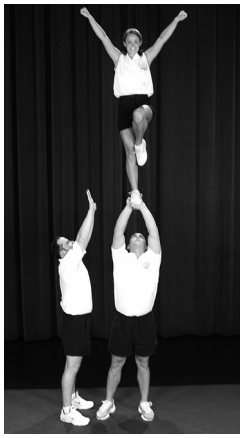


Figure 8.51 Liberty.
Spotter required for high school level.

It should be noted that a liberty heel stretch can also be performed from the basic liberty stunt. Essentially this involves grasping the ankle, toe, and heel of the non-support leg and lifting the non- support leg laterally so as to assume a "heel stretch." **The top person should have demonstrated proficiency in executing a heel stretch on the ground before attempting this stunt overhead.**

Base - From the toss hands position, prep as for the extension and extend up smoothly. During the actual extension, the arms should be brought together directly overhead and not over the right shoulder, otherwise the base's hips will tend to shift to the left causing the stunt to become unbalanced. Using the same grip with the right hand, the left hand quickly moves to support the front portion of the support leg foot, making a platform with the thumb on the outside and the four fingers on the inside.

Dismount - Cradle. Same as in the press to extension.

Spotting - Same as in the press to extension.

Area of Concern - Same as in the press to extension. Also, because the top person is balancing on only one foot, there is less lateral stability. Do not arch back to achieve heel stretch position.

Cupie(Refer to Figure 8.52)

Top Person - Begin in walk-in or toss to hands position. As the base dips and extends up, the top person should pull the feet together and stay tight with back, hips and legs extended.

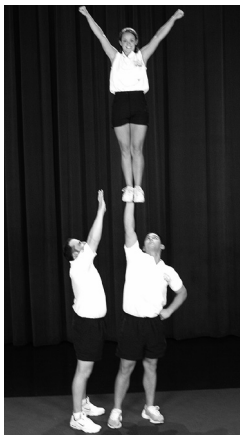


Figure 8.52 Cupie

Spotter required for High School.

Base - The base dips and extends similar to the press to extension. As the base nears full extension with the arms, he guides the top person's feet together, placing both feet in the open palm of one hand if it is large enough. After balance is achieved, the base's other hand may be brought to the hip to achieve proper body alignment.

Grip - A specific handgrip should be used for the Cupie While in the hand support position, shift top person's foot to outer half of base's hand, leaving enough room to serve as a platform for the other foot.

Once the skill has been mastered from the press position, it can be performed from a walk-in or toss.

Dismount - Same as in the press to extension.

Spotting - Two spotters are recommended during the learning stages of this stunt. One spotter is required even after mastery is demonstrated.

Area of Concern – One-arm skills introduce a new type of balancing for the base. Consequently, at least two spotters should be used during the learning phases, one in the front and one in the back. The base must be sufficiently strong to keep the support arm in toward the body's center line; otherwise the top person will fall away from the base.

Pyramid Progressions

By LeRoy McCullough

Pyramids can simply be described as the grouping together of partner stunts via connection or stacking to create one grand structure. Because of the quantity of members that will be involved in even the smallest pyramid structure, **it is important that each individual skill is mastered before attempting to bring them together.**

It is also vital that proper progressions be followed. This will help to promote the safety of the athletes and their success rate in achieving the attempted skills. The progression pattern in pyramids is more detailed than what you might follow in a stunt because there are multiple parts of the pyramid that each has its own progression to follow. Elements to consider progressing independently in your pyramids include:

1) The base or bracing style that will be incorporated.

2) The height of the structure. Will it be a 2 high structure, in which all bases supporting the weight of the top person are on the ground? Or, will it be a 2 ½ high structure, in which the bases on the ground will base another individual, who is holding the top person.

3) The entry or load in. This describes the technique that will be used to propel the top person to the highest level of the pyramid structure.

4) The dismount from the pyramid. This refers to the technique that will be used to get the all involved parties safely back to the ground.

5) Make sure that the athletes can hold the desired structure while standing on the ground prior to performing at the 2 ½ high level

PROGRESSION FOR BASING/BRACING PYRAMIDS:

When building stunts and pyramids, it is important that you have a sturdy base of support. This foundation should be able to sustain the weight of the athlete or athletes that are being supported or held. In order to learn pyramids safely and correctly, implement more bases to support until the team has demonstrated proficiency. Then they can progress to a technique that requires fewer bases. A simple rule to follow is, "where you lack strength, add numbers".

Listed below are a few typical Base/Brace Examples for collegiate pyramids:

- Elevator or prep with three bases
- Elevator or prep with two bases
- Post up shoulder stand to front and back
- Purdue to shoulder stand
- Hands step to shoulder stand
- Toss shoulder stand.

TWO HIGH PYRAMIDS

The term "Two high" pyramids is used in reference to pyramids that consist of a grouping of connected stunts in which the primary sources of support are all on the ground level. These pyramids are allowed for nearly every level of cheerleading so long as the individual stunts that make them up are legal. They also serve as a good way to teach the proper weight bearing responsibilities that the bracing stunts will need to incorporate in the building of 2 ½ pyramid structures at the college level. Below are a few examples of "two high" pyramid structures.



Figure 8.53 Hitch Pyramid



Figure 8.54 Heel Stretch Pyramid



Figure 8.55 Arabesque Pyramid

TWO AND A HALF HIGH PYRAMIDS

These pyramids are not permitted for high school and require bases on the ground to support the weight of their top person while that top person is also responsible for supporting the weight of another top person. There are many different combinations of stunts and body positions that can be used to create pyramid structures. Because of the height created by these structures, it is important that the holding technique employed by the middle layers is mastered at ground level before attempting the entire structure. The same principle holds true in reference to the technique for loading the pyramid. The thrower(s) and the top person should master the entry technique prior to executing the full height structure.

It is critical to safety that the rules specific to spotter placement for each pyramid structure are strictly followed:

- The minimum requirement is one spotter in front or side and one in back for EACH top person being held at the 2 ½ high level. (EXCEPTION 2-1-1 Towers require a second back spot if the first back spot is in contact with the middle layer).
- The height of pyramid structures is defined in the rules specific to the discipline. Always refer to the latest safety rules and updated requirements as rules may change each year.

Progressions for entries into 2 ½ high pyramids:

- Climb into the Pyramid - This entry is the most stable and controlled way to build a structure. It allows for multiple points of contact during the loading process;
- Braced into the Pyramid - This entry allows for minimal release while still providing support to the top person as they mount the pyramid;
- Released into the Pyramid - This entry involves the top person being released from bases, unconnected, into the desired pyramid structure; and
- Released Trick into the Pyramid - This entry involves the top person performing skill elements during the release into the desired pyramid structure.

Examples of 2 ½ High Pyramid Structures:

The pyramid examples below can be performed using single based or double based middle layers.

2-2-1- This pyramid consists of two shoulder stands that face the front. The middle layers hold the foot of the top person on their inside forearm while using the outside arm to support at or just below the knee of the top person.



Figure 8.56
Example of 2-2-1 High Pyramid

2-2-1 A-Frame- This pyramid consists of two shoulder stands or elevator preps that face the front. The middle layer's inside foot is raised by their base(s), putting their leg into a hitched position. The top person stands high on the thigh, closer to the hip than the knee, of the middle layers (in the same way one would stand on a double based thigh stand stunt on the ground).

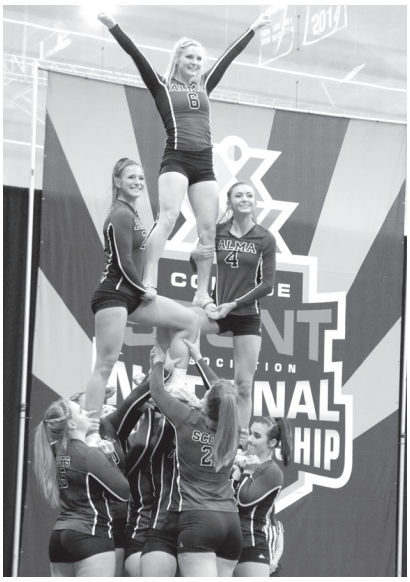


Figure 8.57
2-2-1 A-Frame

1-1-1 Hitch- This pyramid consists of one shoulder stand that faces the front. The middle layer has one foot raised by their base(s), putting their leg into a hitched position. The top person stands high on the thigh, closer to the hip than the knee, of the middle layer.

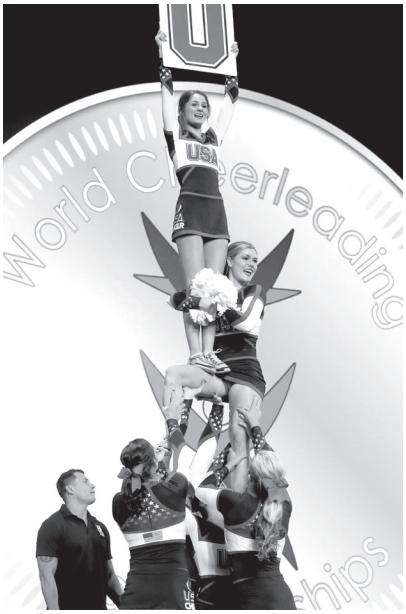


Figure 8.58
1-1-1 Hitch

2-1-1 (Tower)- This pyramid consists of a partner stunt being performed on a double based thigh stand. Due to the nature of this pyramid, if the required back spot is in contact with the middle layer, an additional spotter that is not hands-on is required to ensure the safety of the top person.



Figure 8.59
2-1-1 Tower

Swedish Falls- This pyramid consists of two shoulder stands that face towards each other. One of the middle layers hold under the top persons shoulder (the armpit area), and extends their arms overhead. The other middle layer will also extend their arms over head, but they are holding the ankles of the top person. The top person places her hands on the shoulders of the middle layer and squeezes her body in a horizontal plank position (as done in a push-up).

Braced load-in from chest level. The top girl begins with contact from the middle layers prior to the load-in to the structure.



Figure 8.60
Swedish Falls

PROGRESSIONS FOR DISMOUNTS FROM 2 ½ HIGH PYRAMIDS:

The dismounting of pyramids should be taught in a progression that not only allows the top person to return to the ground level in the safest, most consistent manner possible. It also allows the bases to grow better accustomed to controlling the top person coming down from greater heights than those involved in partner stunting. **The dismounting of 2 ½ high pyramids should begin with controlled lowering back to the throwers** and can gradually progress to pop downs or pop cradles, and other legal dismounts that involve free release of the top person to the bases.

The pyramid dismount technique should be discussed and explained prior to attempting the full pyramid structure to ensure that once it hits, there is a plan for a safe exit:

- Braced lowering to elevator/prep level - Then sponge down safely;

- Fall back to cradle - In this dismount, the top person falls back, in a tight straight body position to a minimum of 2 (two) awaiting catchers. It does not require a height increasing pop from the bases. As a safety precaution, this should be done with 3 catchers in the beginning and then progress to 2 when proficiency is exhibited. As an added precaution, top persons should glance back to see that the catchers are in place and alert prior to executing the fall back; The top person should not allow the head to fall below the waist during the dismount.

- Half-turn to cradle - This dismount happens off the front of the pyramid. It does not require a height increasing pop from the bases. The top person initiates the fall off the front by leading slightly forward with the shoulders, and rolling over the chosen direction so that they fall into a cradle with the feet facing the pyramid. A minimum of 2 (two) awaiting catchers should be used. As a precaution while learning, this should be done with 3 catchers in the beginning and then progress to 2 when proficiency is exhibited;

- Pop off - This is the first of the dismounts in which the bases offer a height increasing "pop" to initiate the top persons exit from the pyramid structure. This is the basic building block for advanced pyramid dismount techniques, so it is vital that it be mastered. The most important element of the pop off is the timing of the bases. The bases should initiate their dip down together, and explode with their legs through the pop together as well. The top person should maintain her body position throughout the bases dip, and then lift into a tight body position at the top of the pop. As the top person approaches the floor, they will place their hands near their waist to await the wrists of the catcher. The catcher positioned behind the top person grabs the waist at the highest point possible. The top person will grab the wrist of the catcher and provide resistance while being lowered to the ground. As the waist of the top person is being caught, one of their feet will be caught by another catcher in the front. This catcher grabs the foot at the highest possible point and provides resistance lowering the top person all the way to the ground;

- Once the pop-off has been mastered, other dismount options become possible. Other dismounts include but are not limited to:

  - Twisting dismounts

  - Front flipping dismounts.

CHAPTER 9

PARTICIPATION

Levels of Cheerleading Participation

By Linda Gooch

More than one hundred years after its conception, the sport of cheerleading continues to grow. Originally established as a spirit support group used to rally a crowd and lead organized cheers, today's cheerleading has evolved into a complex and rigorous athletic activity in its own right. Modern cheerleading provides varying levels of athletic participation and performance opportunities with physical demands and the accompanying "risk" equal to that of any contemporary sports activity.

CLASSIFICATIONS OF CHEERLEADING DISCIPLINES

Modern cheerleading is separated into three basic disciplines. They are: 1) traditional cheerleading teams, which include school and recreational leagues; 2) club teams, called "All Star"; and 3) STUNT. Although the fundamental principles of safety apply to all cheer activities, there are distinct differences in the structure and focus of each of these three disciplines that exist today.

1. **Traditional School Cheerleading Teams**

   Traditional teams are typically affiliated with school or recreational sports programs and include a traditional game day/ crowd leading component. Today, over 80% of public schools in the U.S. have cheerleading teams. Although the athleticism of cheerleaders has risen dramatically in the past 30 years, the primary focus of school-based cheerleading has remained that of a support group promoting leadership and spirit within the school and community.

   Traditional teams may also decide to include exhibitions and/or competition opportunities as a part of the overall experience that they offer to their team while still maintaining the leadership and spirit raising qualities of their programming.

2. **All Star or Club Teams**

   All Star teams began in the late '80s and have grown rapidly. This discipline is typically affiliated with a privately owned gym and does not include the game day and/or crowd- leading component. An All Star or club team does not cheer for other athletic teams. The focus of an All Star team is to prepare skills that can be incorporated into routines for competitions.

   Because the lower impact component of sideline skills is removed from this discipline, the focus of practices narrows in on the more complex and rigorous elements of stunts, tumbling, baskets and pyramids. Instructors and administrators would be well served to be mindful of the chance for overuse injuries when high impact skills are repeated.

   A characteristic of All Star or club teams is the fact that one gym may supervise or

coach a wide variety of age groups and abilities. Making certain that participants are placed with a team that is appropriate with the participant's age and skill level is an important component in providing safe programming.

By their nature All Star teams tend to participate in more frequent competitive events than other disciplines and consequently may encounter a variety of administrators and differing rules for competition. Instructors, gym owners and competition organizers are responsible for being knowledgeable of and following the safety guidelines outlined in this manual.

3. STUNT

STUNT is a competitive team sport derived from cheerleading. It was created by USA Cheer in 2010 to meet the strict Title IX requirements of an NCAA college sport. As such, STUNT teams are typically affiliated with a school. However, unlike traditional cheerleading, STUNT removes the crowd-leading component which fundamentally changes the nature of this activity to a purely competitive sport. Teams compete head to head in cheerleading's technical and athletic elements of partner stunts, pyramids, basket tosses, group jumps and tumbling.

Although there are vast differences in the structure and focus of each of these three cheerleading disciplines, the fundamental principles of this manual apply to all cheerleading activities.

CHEERLEADING PERFORMANCE OPPORTUNITIES

In addition to having a clear understanding of their team's particular discipline of cheerleading, it is also important for coaches and administrators to recognize the specific type of risks that may be involved during performance opportunities.

1. Game Day Crowd Leading

Game day crowd leading focuses on communicating with the crowd (typically during an athletic contest) to encourage their participation in the school's traditions, cheers, band cheers and chants. Signs, pompoms, megaphones and sometimes amplified sound systems are used to help direct the crowd. To facilitate this goal, coordination with the band is a common step that many coaches will take.

It is important for coaches and administrators to recognize that **an athletic event is not a controlled environment and many external factors representing potential safety hazards.** Examples of such external factors include:

a. A basketball player chasing a loose ball out of bounds and colliding with an unsuspecting cheerleader;

b. A football player tackled out of bounds and into a cheerleader that was unaware of his path;

c. A cheerleader tumbling into an official during a basketball timeout.

d. A change in weather conditions making it slippery and unsafe for stunts, tumbling or baskets;

e. Heat and humidity, which cause, increased perspiration and may lead to slippery conditions and increase the potential for dehydration or heat exhaustion; and

f. Photographers, the school band and other student groups that may clutter on the sideline on the sideline.

In addition to the external factors, simple field equipment like yard markers, goal posts, megaphones all have the potential to create safety hazards for game-day cheerleading. It is the responsibility of coaches and administrators to maintain constant vigilance and take every reasonable means to minimize potential hazards.

Team awareness is imperative in creating a safe environment for all participants. Team members must remain attentive at all times to the action taking place in the game. Cheerleaders should be facing the players when the ball is in play so that they can be prepared to move out of the way if the action gets too close to their sideline position. It is crucial that cheers, chants and dance routines are executed in between plays and are ended whenever the ball is in play. This will allow the cheerleaders to turn their attention back to the field or court once play resumes. It is important that cheerleaders are able to see the action on the field or court in order to anticipate the need to move if the action comes too close.

Basic partner stunts, simple tumbling and very limited pyramids are appropriate for sideline cheerleading however teams should refrain from executing these skills whenever the ball is in play.

Cheerleaders should be positioned far enough away from the playing field that allows them time to react and move to avoid a collision with players or officials. To facilitate this precaution, reasonable efforts should be made to provide team members with a clear sight path to the playing field or court when the ball is in play.

The physical characteristics and condition of the performing surface should be given serious attention in sideline cheerleading. **Whenever the performing surface is wet, slippery or excessively hard, advanced skills should not be performed.**

Inclement or changing weather conditions before or during the course of an outdoor event can affect the performing surface. Coaches should be prepared to make adaptations to changes in temperature, wind and atmospheric moisture.

In summary, to reduce the potential for hazards for game-day cheerleading it is important that coaches and administrators review the specific performance environment. A well thought out plan of action should be developed and communicated to team members prior to their engaging in the cheerleading activity should changes to this environment occur. This environment should be continuously monitored for any changes or other intervening variables that might affect the safe execution of the cheerleading activity.

2. Entertainment and Exhibitions

Cheerleaders often provide entertainment for crowds at various athletic events and pep rallies. Generally, these performances include elements choreographed to music that is played over a public address system or by the school's band. These performances include but are not limited to pre-games, half-times and post-game events. Because the environment is generally more controlled, such opportunities usually allow for the execution of more advanced skills than during game-day crowd leading. However, coaches and administrators should carefully evaluate the environment of the setting.

The condition of the performing surface, the height of ceilings and the potential for outside interference from other school groups (fans, the band or the team returning to the court) need to be reviewed and considered.

Advance permission should be obtained from the stadium or event manager and all parties involved should be aware of the planned performance. Making prior arrangements will help to ensure that the performance area is reasonably safe and that the possibility for outside interference is minimized.

Time constraints of the performance should be considered. The length of time for the routine should include time needed to set up and take down any required mats. Special attention should be given to obtaining a time slot where the performing area is available without interference. For example, if a cheerleading team is scheduled to perform at the end of halftime and it takes longer than expected to set up the mats, they run the risk of being in the middle of their routine when the players re-enter the basketball arena for the 2nd half. If for any reason the players do re-enter the court or field (football) while the cheerleaders are performing, the routine should be discontinued, particularly if it contains any stunts or tumbling.

In many situations, exhibitions and pep rallies are the first opportunity for a team to execute some of their more advanced skills which can add an element of stress. As such, coaches should be careful when deciding what level of skills to include in such performances. A coaches willingness to modify (reduce the difficulty level) at such events or circumstance like this allows a team to build confidence for future performances.

During exhibition performance opportunities, coaches should plan to use additional experienced spotters wherever possible.

It is the responsibility of the coach and administrators to ensure that proper matting and other necessary equipment are readily available. Because the fundamental principles of safety apply to all cheerleading activities, this also includes professional cheerleading groups that entertain at professional sporting events. **No matter what the discipline or performance opportunity, coaches and all others that are in a supervisory role of any cheerleading group are responsible for being knowledgeable of and following the basic safety guidelines outlined in this manual.**

In summary, although entertainment and exhibition type of cheerleading opportunities usually allow for the execution of more advanced skills, the conditions should be given special consideration. The ability of the coach or administrator to successfully communicate and plan for both the environment and the team's performer readiness are key aspects to enhancing safety in these performance opportunities.

3. Competition

As organized cheerleading has developed, and the athleticism of cheerleaders has increased so have the demands for cheerleading competitions. Competitive events usually consist of the evaluation and ranking of squads based on technical merit. A team's execution, creativity, entertainment value and degree of difficulty are usually considered when evaluating such skills as partner stunts, pyramids, cheer, dance, tumbling and basket tosses.

Competitive cheerleading is not limited to those in the All Star or STUNT disciplines. Although not reflective of the traditional and primary role, competition between traditional school squads provides an excellent opportunity to recognize a school's cheerleading team for their athletic excellence. Competition between traditional school teams can provide athletes and their sponsoring school with a significant amount of pride. In fact the controlled environment of a well-managed competitive arena is just the appropriate environment for highly trained athletes who are performance ready to display the full array of their well- rehearsed athletic skills.

Competitive routines that may last from two to three minutes places different demands on athletes than game day spirit leading. Additionally, anxiety can arise simply by performing in a new environment or different venue. The wise coach or administrator will

recognize the impact that these factors can have on a team and will take care to make certain that competition material has been well executed and well-rehearsed prior to a public performance.

When managed properly, competitive events are essentially a low-risk activity. However competitive opportunities can vary greatly in terms of their level of professionalism and level of safety. A coach or administrator should diligently investigate the specific conditions under which a competition will be conducted in order to ensure that adequate safety measures are in place. Questions regarding an appropriate performance surface, ceiling height, proper warm-up areas and lighting as well as adequate spotting should be thoroughly answered by the hosting competition.

The key to providing a "safe and successful competitive opportunity" is having athletes who have been well prepared by knowledgeable coaches and administrators who diligently follow the minimum recommendations set forth in this manual.

SUMMARY

To have a clear understanding of the focus and direction of their cheerleading program, coaches and supervisors should recognize which of the three "cheerleading disciplines" in which their team participates. Doing so will allow a coach to properly direct the structure of practices in order to best prepare their athletes.

An understanding of what material is appropriate for cheerleaders to present in these three different performance opportunities (game day crowd leading, entertainment and exhibitions, and competition) is a key element in safe programming. Generally speaking, teams do not have an adequate surface, spotters, or an appropriate space that is free of distractions in order to perform entertainment or competition-type of routines during a game. Consequently there is a high potential for injury whenever teams mismatch their selected material with the environment and setting of their performance opportunity.

The ability of coaches and supervisors to adjust the material of a cheerleading team to the given situation is a crucial aspect of safe programming. Coaches and administrators should develop and clearly communicate to the team which stunts are permitted in each situation Understanding the importance of this recommendation will serve to enhance safety in a wide variety of performance venues.

Regardless of the discipline, level of cheerleading, or the performance opportunity, everyone involved must hold a realistic understanding of the team's skill level and performer readiness. With this knowledge in mind, reasonable judgments about appropriate material should be made.

A set of cheerleading safety guidelines have been unanimously endorsed by a number of national cheerleading organizations. These organizations firmly believe that following the minimum recommendations set forth in this manual in addition to a strict adherence to fundamental safety guidelines that are designed for each team's discipline of cheerleading will allow cheerleading to remain a safe yet exciting and rewarding activity for the participants.

ADDITIONAL MINIMUM RECOMMENDATIONS FOR CHEERLEADING COMPETITION

It is important to realize that the "competitive arena" is a different environment than practice or game settings. For example, squads generally perform more difficult skills at competition. These routines may last from two to three minutes without stopping. In addition, there is heightened pressure on squads when they become the focus of the crowd's attention in the competitive arena.

Therefore, USA Cheer recommends these additional minimum safety guidelines be strictly followed when conducting and/or participating in any cheerleading competition:

1. An adequate performance area should be made available in both the warm-up and competition areas;
2. The competition and warm-up areas should be clear of obstructions and have an adequate ceiling height based on the elements that will be performed;
3. Proper matting should be available in both the warm-up and competition areas;
4. The lighting should be sufficient to adequately illuminate both the competition and warm-up areas;
5. Qualified spotters should be employed in addition to the required spotters;
6. The background and matting should be a contrasting color to that of the performance area to aid in visual cueing;
7. Appropriate First Aid supplies should be available as needed;
8. Qualified personnel should be on hand to administer First Aid as needed;
9. The hosting agency should have an adequate emergency medical plan in place; and
10. Procedures should be in place to address safety issues and questions prior to the event.

Appendices

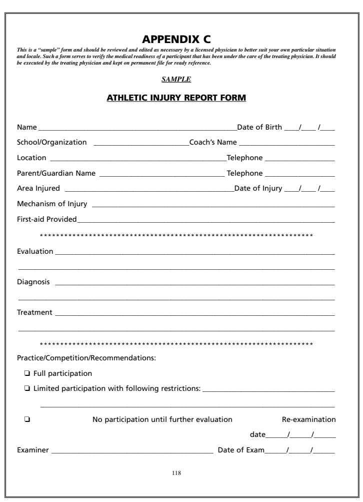
ADDITIONAL RESOURCES

Appendices & Additional Resources

As many of the documents previously available in our printed manual are “living documents”, updated often with new information or as new safety rules are released, we have moved our Appendices section online.

Visit our online repository at **USACHEER.ORG/SAFETY/RESOURCES** for updates, additional resources and forms.

- Informed Consent and Acknowledgement Agreement
- Medical Release Form
- Sample Emergency Action Plan
- Sample Pre-Participation Examination Form
- Participant Injury Report Form
- Sample Skill Qualification Sheet
- Recommended Youth Safety Rules
- Recommended High School Cheerleading Safety Rules
- Recommended College Cheerleading Safety Rules
- Recommended All Star Cheer Safety Rules
- Spirit Program Administrator’s Safety Audit
- Current Injury Reports and Studies



APPENDIX C

This is a “sample” form and should be reviewed and edited as necessary by a licensed physician to better suit your own particular situation and locale. Such a form serves to verify the medical readiness of a participant that has been under the care of the treating physician. It should be executed by the treating physician and kept on permanent file for ready reference.

SAMPLE

ATHLETIC INJURY REPORT FORM

Name ____________ Date of Birth ___/___ /___

School/Organization ____________ Coach’s Name ____________

Location ____________ Telephone ____________

Parent/Guardian Name ____________ Telephone ____________

Area Injured ____________ Date of Injury ___/___ /___

Mechanism of Injury ____________

First-aid Provided ____________

****

Evaluation ____________

Diagnosis ____________

Treatment ____________

****

Practice/Competition/Recommendations:

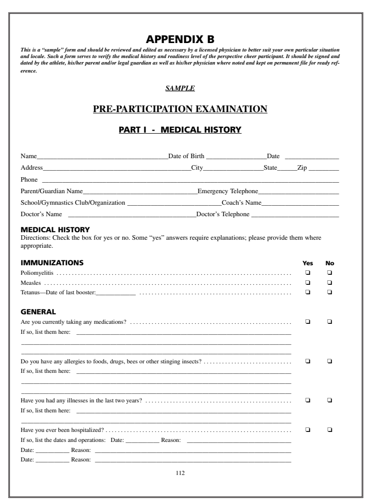
❑ Full participation

❑ Limited participation with following restrictions: ____________

❑ No participation until further evaluation Re-examination date____/____/____

Examiner ____________ Date of Exam____/____/____

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APPENDIX B

This is a “sample” form and should be reviewed and edited as necessary by a licensed physician to better suit your own particular situation and locale. Such a form serves to verify the medical history and readiness level of the perspective cheer participant. It should be signed and dated by the athlete, his/her parent and/or legal guardian as well as his/her physician where noted and kept on permanent file for ready reference.

SAMPLE

PRE-PARTICIPATION EXAMINATION

PART I - MEDICAL HISTORY

Name ____________ Date of Birth ____________ Date ____________

Address ____________ City ____________ State ____ Zip ________

Phone ____________

Parent/Guardian Name ____________ Emergency Telephone ____________

School/Gymnastics Club/Organization ____________ Coach’s Name ____________

Doctor’s Name ____________ Doctor’s Telephone ____________

MEDICAL HISTORY

Directions: Check the box for yes or no. Some “yes” answers require explanations; please provide them where appropriate.

IMMUNIZATIONS	Yes	No
Poliomyelitis	❑	❑
Measles	❑	❑
Tetanus—Date of last booster:________	❑	❑

GENERAL

	Yes	No
Are you currently taking any medications?	❑	❑
If so, list them here: ____________		
Do you have any allergies to foods, drugs, bees or other stinging insects?	❑	❑
If so, list them here: ____________		
Have you had any illnesses in the last two years?	❑	❑
If so, list them here: ____________		
Have you ever been hospitalized?	❑	❑

If so, list the dates and operations: Date: ________ Reason: ____________

Date: ________ Reason: ____________

Date: ________ Reason: ____________

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