

# FROM THE GYM TO THE JURY



America's Leading Authority on Injury, Liability, and Litigation in Sports

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## NCAA CHANGES INSURANCE COVERAGE FOR CHEERLEADERS

The National Collegiate Athletic Association (NCAA) made important changes to its catastrophic injury insurance program for cheerleaders. Effective August 1, 2006, the NCAA will require cheerleaders to be supervised directly by a coach or advisor "who has completed safety-certification training at the time of an accident, for coverage to apply." Juanita Sheeley, NCAA travel and insurance coordinator said, "We're changing the directly supervised requirement to 'directly supervised by a safety-certified coach or advisor.'"

*The NCAA News Online, July 18, 2005.*

### IN MY OPINION

It appears that the NCAA is attempting to provide catastrophic coverage for cheerleaders by developing guidelines in risk management that emphasize risk management strategies that will enable it to continue to provide coverage to protect individual cheerleaders.

Varsity Spirit Corporation has a separate catastrophic injury insurance policy that covers cheerleaders when they travel to and participate in camps and competitions it sponsors. It coverage includes the Universal Cheerleading Association, the Universal Dance Association, the National Cheerleaders Association and the United Spirit Association.

## Cheerleaders Must Stay on Sidelines in Missouri

The Missouri State High School Activities Association (MSHSAA), as of July 1, 2006, "will no longer sanction cheerleaders in regional or state competitions." The MSHSAA will still oversee sideline cheering at athletic events and will continue to provide catastrophic insurance for sideline cheering. However, the association will no longer provide catastrophic liability insurance for competitions, performances or accidents at practices. Cheerleading squads that want to perform at competitions must obtain and pay for their own insurance.

*USA Today, June 13, 2006.*

### IN MY OPINION

Insurance coverage for participants in sport and cheerleading is crucial today. Going without catastrophic insurance may cause some sports and activities such as cheerleading to discontinue their operation.

As reported by *Sports Illustrated* in March of 2002, the University of Nebraska settled an injury case involving a cheerleader for \$2.1 million. The cheerleader was practicing an aerobic flip when she was seriously injured. Nebraska officials subsequently stated that insurance had become so costly, it has decided to ban stunts such as flips, tumbles and pyramids."

## Cheerleading in Court

We have reported court cases involving litigation and cheerleading through the years from 1989 until the present in *From The Gym To The Jury*. From 1989 until the present, we reported more than 35 cases involving cheerleading that were brought before the bar for various reasons. A sampling of the reasons for litigation include the following issues and court cases:

- Injuries allegedly caused by negligence on the part of the instructor or organization.
- Alleged religious discrimination on the part of a cheerleading camp director.
- Legislation to ban bare midriffs in cheerleading uniforms which raises the question—Is cheerleading designed to encourage team spirit or to be sexually suggestive?
- Coaches who encourage and permit cheerleaders to perform moves beyond their ability.
- Academically ineligible high school cheerleaders were not permitted to cheer for 11 of 14 high schools during the 2002-2003 school year.
- Hazing of cheerleaders investigated by police.
- The Office of Civil Rights (OCR) gives guidelines for schools to follow when adding cheerleading as a sport.
- Cheerleader injured attempting "aerobic flip" settles case for \$2.1 million. University bans flips, tumbles and pyramids claiming insurance is too costly.
- Following a game, 20 football players ran into opposing team's cheerleaders, injuring six who required medical treatment.
- Father of a girl who did not make the cheerleading squad files a discrimination lawsuit in federal court.
- Driver of a SUV transporting cheer

*See: Cheerleading in Court...continued on Page 4*

## FROM THE GYM TO THE JURY

*From The Gym To The Jury* is published five times annually. The contents of this publication are considered risk management counseling and not legal advice. Unless otherwise noted, the opinions expressed are those of From the Gym to The Jury, Inc. If legal advice is required, the service of a professional is recommended.

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## From The Editors *Cheerleading Safety*

**O**n May 19, 2006, my granddaughter Elizabeth Appenzeller and I attended a Cheerleading Safety Summit at Fayetteville, North Carolina. We had the opportunity to attend the summit as observers and to learn more about cheerleading in today's society. After the session we decided to publish a special issue of our *From The Gym To The Jury* online newsletter and have it available to anyone interested in cheerleading. We would like to thank Gwen Holtzclaw for inviting us to the summit, Debbie Bracewell, executive director of National Council for Spirit and Safety Education (NCSSE), and Brenda Shields, lead researcher, Columbus Children's Research Institute, who contributed articles for this special issue. The members of the national organization who met at the summit have shown unusual interest in the topic and shared ideas and concerns in a helpful manner.

In the future, we hope to add articles on cheerleading with regard to injury, litigation and other topics for our readers as cheerleading continues to grow on a national and international scale. We welcome comments for anyone who wishes to submit articles, questions and ideas in our future issues. A special word of thanks to Carolina Academic Press for granting us permission to include Dr. Frederick O. Mueller's chapter in *Risk Management in Sport: Issues and Strategies* (Second Edition, 2005) on "Cheerleading and the Law." Appreciation is due Dr. Mueller for his outstanding chapter in the book. To order, email Carolina Academic Press at [www.cap-press.com](http://www.cap-press.com).

*Herb Appenzeller and Ron Baron*

## *Cheerleader Injury Results in National Attention*

**W**hen Southern Illinois University's (SIU) Kristi Yamooka, a cheerleader, lost her balance during a cheerleading routine and fell 15 feet from the top of a pyramid stunt, cheerleading gained immediate attention. A stunned crowd of 14,000 and a national television audience watched in horror expecting the worst. As the EMT's were taking her by stretcher from the scene the 18-year-old cheerleader captivated the crowd and television audience as she waved her arms in time to the SIU band as it played the school's fight song, letting those watching know she was alright. The video of her injury and display of courage was played and replayed on national television as she became the darling of the TV chat shows.

CBS *News.com* reported on January 3, 2006 that cheerleading injuries doubled between 1999 and 2002. The report noted that injured cheerleaders also made more visits to hospital emergency rooms during the same period. A large percentage, however, were not admitted to the hospital which is indicative of the types of injuries sustained. A study in the *Journal of Pediatrics* reported that 208,000 cheerleaders ages five to 18 were treated in hospital emergency rooms for leg, ankle and foot injuries, with most of the injuries happening to 12- to 17-year-olds. The study recommends that cheerleading coaches get professional safety training and that high schools and cheerleading associations adopt uniform safety procedures and develop a national database for tracking injuries. The American Association of Cheerleading Coaches, based in Memphis, Tennessee, publishes a safety manual and offers safety courses for coaches around the country.

Although Yamooka's dramatic movement of her arms in time with the SIU fight song captivated her audience, medical personnel reportedly objected to her movements because the extent of her injuries were not known at that time. These practitioners recommend that athletes, including cheerleaders, with possible neck and spinal injuries be immobilized until qualified medical personnel have an opportunity to fully examine the injury.

The unfortunate injury to Yamooka gained the attention of millions through exposure on television. Hopefully the publicity will lead to positive safety measures for cheerleaders. However, it may also lead to an overreaction and a call for the elimination of some legitimate stunts. It is clear that cheerleading can use the injury to Yamooka to increase awareness for advances in safety for cheerleaders everywhere.  
*From The Gym To The Jury*, Volume 17, No. 3, 2006.

# Reporting Cheerleading Injuries

by Brenda Shields

Cheerleading-related injuries are on the rise and are a significant source of injury to girls and boys. According to a study published in the January, 2006 issue of *Pediatrics*, the number of cheerleading-related injuries sustained by children between the ages of five to 18 and treated in U.S. hospital emergency departments more than doubled between 1990 and 2002. Injuries increased from an estimated 10,900 in 1990 to 22,900 in 2002. These injuries occurred to the arms and legs (64 percent), head and neck (19 percent) and torso (17 percent). They mostly consisted of strains or sprains (52 percent); soft tissue injuries, such as scrapes, bruises, and cuts (22 percent); fractures or dislocations (16 percent), and concussions (4 percent). Only 1 percent of injured cheerleaders were admitted to the hospital and almost all of those were admitted for further treatment of fractures or dislocations. Although no deaths were reported in this study, cheerleading-related paralysis and death have been reported by others.

The change from previous cheerleading styles to more gymnastic-type skills may have contributed to the increase in the number of cheerleading-related injuries, along with an increase in the number of cheerleading participants. Many questions remain unanswered. How are these injuries occurring? Are they occurring during practices or per-

formances? How many cheerleaders are participating in cheerleading at the different levels (elementary school, middle school, high school, college, All-Star, recreation leagues)? Have cheerleading coaches completed safety training and certification programs?

To answer these questions, identify injury risk factors, calculate cheerleading-related injury rates, and monitor temporal trends in cheerleading-related injuries, the authors of the *Pediatrics'* study developed Cheerleading RIO™, an online, internet-based, reporting system for cheerleading participation and injury data collection.

Cheerleading RIO™ is designed to be user-friendly and is based on questions that users can answer by clicking on a list of answer choices, typing in a number, or typing in a short answer. Users log on to the website <http://cheerstudy.ccri.ws/> once a week to report data on cheerleading injuries and cheerleader participation in try-outs, practice sessions, pep-rallies, competitions and

games for that week. All data collected by this system are devoid of identifying information. No injury can be linked back to an individual cheerleader, coach, team, gym, school or cheerleading organization. Participating cheerleading teams are asked to select a designated reporter to submit data for their team during a one-year period. Currently, teams from the United States, Canada and Europe are participating in the Cheerleading RIO™ program. Enrollment for the program will occur during the months of May and June each year. Data collected will be analyzed and reported, in aggregate form, on a yearly basis. These reports will be available to all participating teams, the cheerleading industry and published in peer-reviewed scientific journals. Data from Cheerleading RIO™ will provide the scientific basis to enable researchers, cheerleading organizations, school officials and public health professionals to develop recommendations for making cheerleading safer for participants.

Shields BJ and Smith GA. "Cheerleading-related Injuries to Children Five to 18 Years of Age: United States, 1990-2002", *Pediatrics* 2006;117:122-129.

**CHEERLEADING  
RIO™**  
<http://cheerstudy.ccri.ws/>

## IN MY OPINION

We appreciate the efforts of Brenda Shields in using the Cheerleading RIO™ system to collect injury data for cheerleading. Any organization or school (from elementary to university) can send in an injury report and receive a status report free. This information is a valuable resource for all who are associated with cheerleading. It is a service at no cost to those who submit the reports and one that will help curb injuries and make cheerleading safer for all participants. We encourage you to join.



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# Cheerleading: A Call for Action

by Elizabeth Appenzeller

As a former middle, high school and collegiate cheerleader, I have had a wide variety of experiences in the sport—both good and bad. Starting with the bad, I too remember practicing in hallways and grassy areas. I had coaches who were merely “advisors” with no cheerleading experience. I also had my share of bumps, bruises and scratches.

Participating in cheerleading has been one of the greatest joys of my life. I love stunting and performing and am constantly impressed with the new and creative stunts that squads are trying. The rapid rate at which the sport is evolving is amazing.

That being said, I do not believe that any organization should limit what cheerleaders are able to do in performance. Limiting stunts cheerleaders can perform will never stop them from trying “illegal” stunts. What does need to happen is for the cheerleading community to unify and work collectively to better educate others about their sport.

Cheerleading coaches need specialized training. Requiring coaches to become certified may help reduce injuries associated with cheerleading. Administrators at all levels must understand the special needs that cheerleading programs require.

Certified coaches must regularly communicate with administrators about the needs of their cheerleading programs. If a unified cheerleading community puts the pressure on, someone will listen and take notice. Above all, we need to engage insurance companies in the conversation. Cheerleading can not afford to lose insurance coverage. Cheerleading, even with complex tumbling stunts, can be conducted in a safe manner. Proper facilities and certified coaches with the appropriate training and experience are a great start.

*Elizabeth Appenzeller started cheering at women’s college basketball games at a very young age. She was a member of cheerleading squads in middle and secondary schools and was named a high school All American. At Guilford College she helped revive a underutilized cheerleading program. She has worked as an assistant cheerleading coach at High Point University where she is currently a candidate for the Master of Arts degree in sport management.*

## IN MY OPINION

Elizabeth’s call for action is typical of a cheerleader who has been active in pyramids, tumbling and stunts. Many cheerleaders with special gymnastic skills do not want their activities curtailed because of injuries or lawsuits. If cheerleading continues to perform special routines, I encourage the training and certification of coaches, research into injury reporting and other safety measures for the industry. I agree with her comment that insurance companies need to be involved with administrators, coaches and participants so that safety becomes a priority and insurance coverage of cheerleaders remains constant.

## Cheerleading in Court

*continued from Page 1*

- leaders lost control when her attention was diverted as she adjusted the radio. One cheerleader died in the wreck that followed. (This death was one of three reported when drivers’ attention was diverted leading to an accident).
- Injured student (cheerleader) falls from pyramid and claims in lawsuit that landing on concrete led to her serious injury. She alleged that the school failed to provide a safe place to train or practice.
- Court dismisses lawsuit against school, holding that cheerleader assumed risk of injury and obvious risk of a hard surface.
- Three cheerleaders killed and 11 injured when the van in which they were traveling, at speeds of 90 miles per hour, blew a tire and flipped over.
- Parents protest discriminatory double standard in punishment for “unlady-like behavior.” Parents claim that the school officials had a higher standard for cheerleaders than boys participating in baseball.
- School agreed to compromise by allowing cheerleader with cerebral palsy to waive jumping and flipping requirement. She had not been allowed to cheer prior to her lawsuit.
- Cheerleaders spike drink of another cheerleader they felt did not meet their standards. They wanted to make her too sick to cheer.
- Cheerleader files frivolous lawsuit regarding her claim that her Fifth Amendment rights were violated.
- Cheerleaders suspended for theft at convenience store.
- The Office of Civil Rights (OCR) said it will not recognize cheerleading as a sport for those seeking to comply with Title IX guidelines.
- Director of National Center for Catastrophic Sports Injuries reported that cheerleading is becoming a hazardous sport.
- Injured student alleges that university failed to provide adequate supervision of her cheerleading squad.
- Athletics director refers to university’s cheerleaders in negative terms at a closed meeting. Cheerleaders learn of slur and refuse to cheer at a nationally televised game.
- Court dismisses cheerleader’s claim that her high school denied her equal protection and due process.
- College cheerleader sues for alleged failure to supervise. Appeals court reverses trial court’s judgment in behalf of the injured cheerleader and awards \$74,448.50 in damages.
- Insurance company pays \$2 million to injured cheerleader but disputes payment.
- High school cheerleader sues summer cheerleading camp and others for injury caused by a fall from a human pyramid.

These situations, and many others that we did not report, indicate the wide variety of cases and issues involving cheerleading and those in positions of authority who are held responsible for injuries. It appears that the threat or the actual filing of a lawsuit, can at times, lead to a greater awareness of cheerleading problems that may lead to injuries. This awareness has, in all probability, led to significant improvements in cheerleading safety.

# The Importance of Training Cheerleading Coaches

by Debbie Bracewell

There are few things in the cheer industry on which everyone agrees, but very few would disagree with the need for coaches' training. With the growing number of cheerleading participants and growing number of injuries, the need for coaches' training is becoming more and more important. No longer can schools and gyms cross their fingers and hope for the best. The latest safety survey data suggests that poor practice facilities and uninformed coaches may contribute to the number of injuries.

What can be done to correct these issues? Schools and colleges should help ensure that practice facilities are safe. Coaches across the country still remark they are relegated to parking lots and large tiled areas such as cafeterias. Areas such as these have not been considered safe for cheerleading practice for the past 15 years. Cheerleaders may have access to mats, but the mats may be in disrepair or the wrong kind of mats for the activity. In schools with a number of sporting teams, space is limited, and cheerleading squads are bounced from one area to another looking for a safe place to practice. Providing a fully matted surface may be cost prohibitive, but providing at least two or three strips of foam matting is much less expensive and gives a safe surface for learning new material and practicing. Providing a safe environment is the right thing to do. Practice areas should be well lit, have access to water, and have floors, ceilings and walls that are safe for the activity. If the practice area is outdoors, it should be free of glass, rocks, uneven ground, and wild life. Providing safe practice facilities for all athletic activities will certainly help alleviate the possibility of catastrophic injuries.

The yearly turn-over rate in cheer coaches is at least 60 percent. School systems often find themselves looking for any candidate willing to take the cheerleader coaching responsibilities. If school systems searched for cheerleader coaches as enthusiastically as they do for football or basketball coaches, cheerleader programs would probably run as seamlessly as the sports activities they support. The school's duty is not complete upon hiring a coach—it must support that coach with funds for training and opportunities for continuing education. Several groups offer training for cheerleader coaches of which the National Council for Spirit Safety and Education is only one. Cheerleading safety expert Gwen Holtsclaw notes:

Recognizing that cheerleading is an increasingly physical activity and that all physical activity carries risk of injury, Cheer Ltd. is proud to be a founding member of the National Council of Spirit Safety and Education (NCSSE). Through our collaborative efforts, 3,900 coaches have received aggressive training in cheerleading safety and injury prevention in only 24 months. We will never know the number of injuries these NCSSE courses have prevented. What we do know is that, as companies in this industry, we have done something to make it safer for scores and scores of young cheerleaders. On those rare but heart-breaking occasions when a cheerleader suffers a serious injury, Cheer Ltd. has renewed clarity about why we helped found and continue to fully support NCSSE. Commitment to cheerleading safety must be an

authentic part of every company's mission.

Four core courses comprise the NCSSE Master Level of certification:

1. Cheer/Dance Coaching Principles & Ethics
2. Coaching Cheer Fundamentals
3. Stunts and Tumbling I
4. Stunts and Tumbling II

Online or correspondence classes are not offered. Due to the serious nature of the material, courses are taught in a face-to-face setting. This interactive approach allows for give-and-take discussions and correcting misinformation or misconceptions. Instructors have the opportunity to emphasize the expanding roles of cheer or dance coaches and their increasing legal responsibilities. New and veteran coaches will benefit from program management sections. Stunts are taught through interactive videos and course manuals that emphasize the role of each person in a stunt and the safety measures that must be taken to ensure the safety of participants. Tests must be successfully completed in order to receive certification. Tests are given and graded during the NCSSE sessions which allows coaches to see the questions they missed and access their areas of weakness. This also allows instructors another opportunity to review the information with the class attendees.

The NCSSE began as a cooperative effort of leading cheerleading companies that saw the need for educational opportunities for cheerleader coaches. "Like with any profession, proper training is vital," says Steve Wedge, president and CEO of Cheerleaders of America (COA). "That is why the National Council for Spirit Safety and Education (NCSSE) developed the most comprehensive and professional training program available for cheer and dance coaches. School administrators and all star gym owners should require their coaches to get this training; they must be prepared to handle the many aspects expected of them in today's coaching profession. COA is proud to be a founding member of the NCSSE."

Dimi Kosmakos, vice president of Coastal Alliance Corporation (Atlantic Championships) is "proud to be a Gold Member of the NCSSE, as safety and education is necessary for the continued development of our sport. As the industry evolves, so does NCSSE training, providing a standard of safety and excellence for all recreation, school and all star coaches. Newly developed specialty courses, geared to school and all star coaches, are extremely beneficial for coaches and companies alike. Each of us has a responsibility not only to the betterment of our sport, but to the safety of our participants. Education is the greatest asset that coaches can bring to their teams. We encourage all coaches to become NCSSE certified."

As cheerleading becomes more athletic, coaches, parents and supervisors must understand the need for safe practice facilities and trained personnel. Cheer and dance coaches must receive financial and educational support so their programs can become safer and more successful.

*Debbie Bracewell, Executive Director of the National Council for Spirit and Safety Education (NCSSE). Her website is [dbracewell@spiritsafety.com](mailto:dbracewell@spiritsafety.com)*

# CHEERLEADING AND THE LAW

by Fredrick O. Mueller

The association of injuries and cheerleading is something that has taken place within the last 25 years. As a comparison, football injury data collection began in the late 1800s. Cheerleading actually began around the same time as American Football, with young men leading the cheers and school songs at sporting events. According to A. B. Frederick, cheerleading has gone through three distinct periods (Frederick 1990). In the pre-World War II era, cheerleading was a student organized activity which consisted of yelling cheers and simple tumbling. After World War II, cheerleading spread rapidly across the country, and equipment like the miniature trampoline began to be used in gymnastics maneuvers, which increased the possibility of accidents. During the last period, from approximately 1975 to the present when the numbers of participants has grown to hundreds of thousands, stunts have become increasingly complex, competitions have been organized for a national championship, and summer training camps have become popular. This third stage is when cheerleading also became associated with injuries, both catastrophic and minor.

The Consumer Product Safety Commission (CPSC) reported an estimated 4,954 hospital emergency room visits in 1980 caused by cheerleading injuries (CPSC 1995). By 1986 that number increased to 6,911 and was continuing to grow. The 1995 CPSC data showed an estimate of 16,982 cheerleading injuries that involved the individual going to a hospital emergency room. The 2002 CPSC injury data for cheerleading shows 24,675 emergency room injuries. There is no doubt that the number of participants has also increased during this time, but the problem is that the number of cheerleaders was not known in the early years, and that participation figures have been collected at the high school level only within the last five years. The latest participation numbers from the National Federation of State High School Associations (NFHS 2002), which calls the activity competitive spirit show the following:

| <u>Activity</u>    | <u>Boys</u> | <u>Girls</u> | <u>Total</u> |
|--------------------|-------------|--------------|--------------|
| Competitive Spirit | 3,207       | 111,191      | 114,398      |

These numbers are for competitive spirit only, and do not include participation numbers for drill, pom-pom, or cheerleading. These numbers do not include a wide variety of other cheerleading groups, which could increase these numbers dramatically.

## **NATIONAL CENTER FOR CATASTROPHIC SPORTS INJURY RESEARCH**

The National Center for Catastrophic Sports Injury Research began collecting cheerleading data when a number of cases were reported at the college level in 1982-1983. Following are the results of twenty years of data collection.

## **DIRECT CHEERLEADING FATALITIES: 1982-83 TO 2001-02**

There have been two cheerleading direct fatalities during the twenty year period from 1982-2002 (see Tables I and II). High school and college cheerleading each accounted for one fatality. The high school cheerleader was injured and died a week after the accident in which she fell from a double level cheerleading stunt during practice and struck her head on the gym floor. She suffered massive head injuries. The college cheerleader also died from injuries suffered during a cheerleading stunt. Her injuries included multiple skull fractures and massive brain damage. The athlete fell from the top level of a pyramid type stunt and struck her head on the gym floor. The direct fatality injury rate, if one used the estimates provided (approximately 200,000 high school cheerleaders and 10,000 college cheerleaders per year) would be 0.03 per 100,000 participants at the high school level and 0.5 per 100,000 participants at the college level.

## **DISABILITY INJURIES IN CHEERLEADING: 1982-83 TO 2001-02**

There have been nine permanent disability injuries at the high school level for the twenty year period mentioned above. A majority of the injuries happened when the athlete fell from a pyramid stunt or when she/he was dropped during a basket catch or dropped during another activity that involved being caught during a cheerleading stunt. Following are a sample of the cases involving high school cheerleading:

- A high school cheerleader was injured during a practice after falling from the top of a pyramid. She struck her head and neck on a hard surface and was partially paralyzed.
- A high school cheerleader was attempting to complete a back flip off the shoulders of another cheerleader. She landed on her head and neck, fractured a cervical vertebra, and was diagnosed as quadriplegic.
- A high school cheerleader fell from a pyramid in practice. She was six feet off the floor when she fell and was not using spotters. Her injuries included a fractured collarbone, a damaged ear drum, and a basal skull fracture. She has suffered a partial hearing loss and has to wear special glasses for reading.
- A high school cheerleader was tossed into the air by two of her teammates and was supposed to flip backwards and land feet first on the shoulders of two other cheerleaders. She fell on a hard surface during the stunt and was paralyzed from the waist down.
- A high school cheerleader fractured a cervical vertebra during practice. She was doing a series of back flips during a tumbling run, slipped on the wet grass, and landed on her neck. She is quadriplegic.
- A high school cheerleader was injured during a stunt when a fellow cheerleader fell on her head. She has had permanent medical problems since the accident.

Disability injury rates for high school cheerleading is 0.23 per 100,000 participants. This rate is very low, but there are concerns that there should not be any catastrophic injuries in cheerleading.

Disability injuries at the college level numbered five from 1982-2002. The etiology of college injuries is no different than that of the high school injuries — a cheerleader falling from a pyramid stunt and striking a hard surface or being dropped during another stunt. Following are sample cases involving college disability injuries:

- A cheerleader was injured while cheering at a basketball game when he performed a dive from a mini-trampoline over several cheerleaders into a forward roll. He fractured and dislocated several cervical vertebrae and had permanent paralysis.
- A college cheerleader fractured her skull in practice after falling from the top level of a three high pyramid. She struck her head on the wood floor in the gym. She was in critical condition for a period of time, but was released from the hospital and is involved in occupational therapy. She has permanent disabilities.
- A cheerleader was paralyzed after a fall in practice. He was attempting a front flip from a mini-trampoline. He dislocated several cervical vertebrae and is now quadriplegic.
- A college cheerleader was paralyzed after attempting a double flip during a basket toss. At the present time she is quadriplegic.

The disability injury rate at the college level is 2.50 per 100,000 participants. When compared to other college sports this rate is fairly high.

## **SERIOUS INJURIES IN CHEERLEADING: 1982-83 TO 2001-02**

From 1982 through 2002 there were 18 high school serious cheerleading injuries. The etiology is exactly the same as the disability injuries and in most cases can be prevented. The serious injury rate is 0.45 per 100,000 participants in high school cheerleading. There were also 12 serious injuries in college cheerleading during the same time period. The case of the college cheerleader who suffered a head injury during practice is a good example of how many of the serious injuries could have been disability injuries or fatalities if there has not been proper medical care or medical facilities available to the individual. The cheerleader was thrown into the air, but was not caught by her teammates and struck her head on the gym floor. She was in critical condition, was downgraded to serious and is expected to recover. The serious injury rate is 6.00 per 100,000 participants for college cheerleading and this rate is high when compared with other college sports.

## **CONSUMER PRODUCT SAFETY COMMISSION DATA**

As previously mentioned in this chapter, the Consumer Product Safety commission collects injury data on product related injuries and sport is one of those areas in the data collection. The CPSC's most recent figures on cheerleading revealed an estimate of 24,674 injuries in 2002. These estimates are calculated using data from a sample of hospitals which are statistically representative of institutions with emergency treatment departments located within the United States and its territories.

As shown in Table III, females are injured at much greater numbers than males, but if one looks at participation numbers there are many more female cheerleaders. This table also shows that there is not much of a difference between the 5 to 14 and the 15 to 24 age groups. It is not surprising that the numbers are low for the 25 to 44 age group since participation levels are very low for this group. It is impossible to estimate injury rates since the number of participants is unknown, and it is not known how many of these participants were high school or college cheerleaders.

Table IV shows the type of injuries that cheerleaders are receiving, and it is not surprising that sprains and strains lead the list, followed by fractures, and contusions- abrasions. This would be true for most sports and cheerleading is a sport. What may be surprising is the percentage of fractures, dislocations, lacerations, and concussions.

In most athletic injury studies the knee and ankle are the body parts most injured, but as shown in Table V the arms-wrist-hand-fingers lead the list in the CPSC data, followed by the head-neck-face. The arms-wrist-hand-fingers are at the top of the list since many of the stunts performed involve catching or throwing a partner or tumbling activities. The head-neck-face are also close to the top due to the type of stunts being performed. Falling from pyramids or shoulders onto a hard surface or onto another athlete accounts for most of these injuries.

A high percentage of these injuries are not severe and this is illustrated in Table VI. Ninety-eight percent of the injured participants were treated and released, with only one percent being hospitalized.

Table VII reveals the fact the cheerleading injuries are happening during the football season and the winter basketball season. The months of June, July, and August involve the cheerleaders preparing for the football season and participating in camps. Summer month preparation is as intense for the cheerleading squad as it is for the football team.

The incidence of catastrophic injuries in sports at the high school and college levels is low, but even one is too many. Permanent paralysis, brain damage, and death should not be associated with teenagers and young adults participating in high school and college athletics. One catastrophic injury is not only devastating to the injured athlete, but also the athlete's family, school, and community.

## **INJURY PREVENTION**

With proper medical care and safety precautions a number of these injuries can be prevented. It is possible to reduce the number of catastrophic injuries with a good data collection system, the implementation of participation rules, proper medical care, and good coaching. Following are a number of recommendations for injury prevention.

## **PRE-PARTICIPATION EXAMS**

Mandatory medical examinations and a medical history should be taken before allowing a cheerleader to participate. The National Collegiate Athletic Association (NCAA) recommends a comprehensive medical examination when an athlete first enters a college athletic program and an annual health history update with use of referral exams when warranted. This initial evaluation should include a comprehensive health history, immunization history as defined by the current Center for Disease Control (CDC) guidelines, and a relevant physical exam, part of which should include an orthopedic evaluation. High schools should follow the recommendations set by their state high school athletic associations. If there are no set recommendations contact the National Federation of State High School Associations in Indianapolis, IN. If the physician or coach has any questions about the readiness of the athlete, the athlete should not be allowed to participate.

## **PROPER CONDITIONING**

All personnel concerned with training cheerleaders should emphasize proper, gradual, and complete physical conditioning. Adequate conditioning would include cardiovascular conditioning, muscular strength, muscular endurance, and flexibility.

## **MEDICAL CARE**

Medical coverage of both practice and game situations is important. Certified athletic trainers can provide good medical coverage, but a physician should be on call for practices and possibly present at games. A physician on-site is preferred, but if this is not possible, written emergency procedures should be prepared in advance. Emergency plans for a possible catastrophic injury should be written and distributed to all personnel involved with the program. Personnel will include, but not be limited to the head coach, assistant coaches, managers, athletic trainers, and physicians. Cheerleaders should be made aware of emergency procedures. If everyone understands his/her responsibility in the event of a catastrophic injury, the chances of permanent disability or death may be reduced.

When a cheerleader has experienced or shown signs of head trauma (loss of consciousness, visual disturbances, headache, inability to walk correctly, obvious disorientation, memory loss) she/he should receive immediate medical

attention and should not be allowed to practice or cheer without permission from the proper medical authorities.

Each institution should strive to have a team athletic trainer who is a regular member of the faculty and is adequately prepared and qualified. Trainers certified by the National Athletic Trainers Association (NATA) are preferred. Coaches should never be involved in making medical decisions concerning their cheerleaders and only medical personnel should decide when she/he returns to cheer after an injury or illness.

## **PROPER TRAINING OF COACHES**

Hiring coaches with the ability and expertise to teach the fundamental skills of cheerleading is most important. Competent coaching in cheerleading is a major cause of concern. High schools are having a difficult time employing coaches who are full time faculty members and in many cases have to hire part time coaches. This is not a problem if these coaches know the fundamental skills of the sport and have the ability to teach these skills to the participants. Improper teaching of sport skills can be a direct cause of injuries – both catastrophic and other. Cheerleaders should be trained by a qualified coach with training in gymnastics. This person should also be trained in the proper methods for spotting and other safety procedures. Coaches should supervise all practice sessions in a safe facility and should also keep up-to-date with new safety procedures and safety equipment. The days of hiring coaches with no knowledge of cheerleading skills should end. In addition, cheerleading coaches should place an emphasis on providing excellent facilities and securing the safest and best equipment possible.

Cheerleaders should receive proper training and instruction before attempting gymnastic type stunts and should not attempt stunts they are not capable of completing. A qualification system demonstrating mastery of stunts in progression is recommended (George 1985). Mini-trampolines and flips off pyramids and shoulders are prohibited and should never be attempted. Pyramid and partner stunts over shoulder level should not be performed without mats and spotters.

## IN MY OPINION

Finally, there should be continued research concerning safety in cheerleading. There is no excuse for the number of participants being injured. Cheerleading should be conducted within the limits of safety. The American Association of Cheerleading Coaches and Advisors Safety Certification Program has been implemented and a great number of coaches have participated in safety certification programs. Every attempt should be made to have all cheerleading coaches go through a certification program.

According to the National Federation of State High School Associations (NFHS), the primary purpose of spirit groups (cheerleaders, pom squads, dance/drill teams, flag corps) is to serve as support groups for the interscholastic athletic programs within the school. It should also be mentioned that spirit groups have also evolved to include competition as athletes. These participants must condition, practice, and warm up the same as other athletes in preparation for a performance. The NFHS states that competition should be a secondary consideration for spirit groups.

A rule book for spirit groups is published by the NFHS and includes information on both legal and illegal stunts. All of the rules were and are adopted to enhance the safety of the participants. Copies of the spirit group rules book are available from the NFHS office at PO Box 690, Indianapolis, IN 46206.

## REFERENCES

- Consumer Product Safety Commission, National Injury Information Clearinghouse. 2004. Washington, DC.
- Frederick, A.B. *Educational and Safety Materials for Cheerleading*. AACCA
- Cheerleading Safety Manual*. Tennessee: UCA Publications.
- George, G.S. 1985. *USGF Gymnastics Safety Manual*. Indianapolis, IN: The USGF Publications Department.
- National Collegiate Athletic Association. 2003. 2002-03 *NCAA Sports Medicine Handbook*. Fifteenth Edition. Indianapolis, IN.
- National Center for Catastrophic Sports Injury Research. 2003. *20th Annual Report* 2001-2002. Chapel Hill, NC: University of North Carolina at Chapel Hill.
- National Federation of State High School Associations. 2003. *National Federation Rules Book — Spirit 2001-2002*. Indianapolis, IN.

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**TABLE I  
HIGH SCHOOL CHEERLEADING DIRECT  
CATASTROPHIC INJURIES:  
1982-83 TO 2001-02**

| Year      | Fatalities | Disability | Serious |
|-----------|------------|------------|---------|
| 1982-1983 | 0          | 0          | 0       |
| 1983-1984 | 0          | 0          | 0       |
| 1984-1985 | 0          | 1          | 0       |
| 1985-1986 | 0          | 1          | 0       |
| 1986-1987 | 0          | 0          | 0       |
| 1987-1988 | 0          | 2          | 1       |
| 1988-1989 | 0          | 0          | 1       |
| 1989-1990 | 0          | 1          | 1       |
| 1990-1991 | 0          | 0          | 1       |
| 1991-1992 | 1          | 1          | 0       |
| 1992-1993 | 0          | 0          | 1       |
| 1993-1994 | 0          | 0          | 2       |
| 1994-1995 | 0          | 1          | 2       |
| 1995-1996 | 0          | 0          | 0       |
| 1996-1997 | 0          | 1          | 1       |
| 1997-1998 | 0          | 0          | 0       |
| 1998-1999 | 0          | 0          | 3       |
| 1999-2000 | 0          | 0          | 3       |
| 2000-2001 | 0          | 0          | 0       |
| 2001-2002 | 0          | 1          | 2       |
| Totals    | 1          | 9          | 18      |

**TABLE II  
COLLEGE CHEERLEADING DIRECT  
CATASTROPHIC INJURIES:  
1982-83 TO 2001-02**

| Year      | Fatalities | Disability | Serious |
|-----------|------------|------------|---------|
| 1982-1983 | 0          | 1          | 1       |
| 1983-1984 | 0          | 0          | 2       |
| 1984-1985 | 0          | 1          | 0       |
| 1985-1986 | 1          | 1          | 0       |
| 1986-1987 | 0          | 0          | 1       |
| 1987-1988 | 0          | 0          | 0       |
| 1988-1989 | 0          | 0          | 0       |
| 1989-1990 | 0          | 0          | 1       |
| 1990-1991 | 0          | 0          | 0       |
| 1991-1992 | 0          | 0          | 1       |
| 1992-1993 | 0          | 0          | 0       |
| 1993-1994 | 0          | 0          | 2       |
| 1994-1995 | 0          | 1          | 1       |
| 1995-1996 | 0          | 0          | 0       |
| 1996-1997 | 0          | 1          | 1       |
| 1997-1998 | 0          | 0          | 0       |
| 1998-1999 | 0          | 0          | 0       |
| 1999-2000 | 0          | 0          | 1       |
| 2000-2001 | 0          | 0          | 0       |
| 2001-2002 | 0          | 0          | 1       |
| Totals    | 1          | 5          | 12      |

**TABLE III  
CHEERLEADING INJURIES REPORTED BY  
THE CONSUMER PRODUCT SAFETY  
COMMISSION BY AGE AND SEX  
FOR THE CALENDAR YEAR 2002**

| <u>Age</u> | <u>Male</u> | <u>Female</u> | <u>Total</u> |
|------------|-------------|---------------|--------------|
| 5-14       | 305         | 10,624        | 10,929       |
| 15-24      | 871         | 12,405        | 13,276       |
| 25-44      | 282         | 145           | 427          |
| Totals     | 1,458       | 23,174        | 24,632       |

**TABLE IV  
CHEERLEADING INJURIES REPORTED BY  
THE CONSUMER PRODUCT SAFETY  
COMMISSION FOR THE CALENDAR YEAR 2002**

| <u>Type Injury</u> | <u>Frequency</u> | <u>Percentage</u> |
|--------------------|------------------|-------------------|
| Sprain-Strain      | 11,353           | 46.0              |
| Fracture           | 4,126            | 16.7              |
| Contusion-Abrasion | 3,952            | 16.0              |
| Internal Injury    | 1,057            | 4.3               |
| Laceration         | 779              | 3.2               |
| Dislocation        | 348              | 1.4               |
| Concussion         | 351              | 1.4               |
| Dental Injury      | 82               | 0.3               |
| Hematoma           | 68               | 0.3               |
| Avulsion           | 67               | 0.3               |
| Other              | 2,491            | 10.1              |
| Totals             | 24,674           | 100.0             |

**TABLE V  
CHEERLEADING INJURIES REPORTED BY  
THE CONSUMER PRODUCT SAFETY  
COMMISSION INJURIES BY BODY PART  
FOR THE CALENDAR YEAR 2002**

| <u>Body Part</u>        | <u>Frequency</u> | <u>Percentage</u> |
|-------------------------|------------------|-------------------|
| Arms-Wrist-Hand-Fingers | 6,854            | 27.8              |
| Head-Neck-Face          | 5,497            | 22.3              |
| Knee-Ankle              | 5,235            | 21.2              |
| Upper Trunk-Shoulders   | 2,440            | 9.9               |
| Lower Trunk             | 2,052            | 8.3               |
| Lower Leg-Foot-Toes     | 1,879            | 7.6               |
| Upper Leg               | 331              | 1.3               |
| Other                   | 226              | 0.9               |
| Unknown                 | 160              | 0.7               |
| Totals                  | 24,674           | 100.0             |

**TABLE VI  
CHEERLEADING INJURIES REPORTED BY  
THE CONSUMER PRODUCT SAFETY  
COMMISSION BY DISPOSITION  
FOR THE CALENDAR YEAR 2002**

| <u>Disposition</u>   | <u>Frequency</u> | <u>Percentage</u> |
|----------------------|------------------|-------------------|
| Treated and Released | 24,205           | 98.1              |
| Hospitalized         | 257              | 1.0               |
| Held for Observation | 212              | 0.9               |
| Totals               | 24,674           | 100.0             |

**TABLE VII  
CHEERLEADING INJURIES REPORTED BY  
THE CONSUMER PRODUCT SAFETY  
COMMISSION INJURIES BY MONTH  
FOR THE CALENDAR YEAR 2002**

| <u>Months</u>                | <u>Frequency</u> | <u>Percentage</u> |
|------------------------------|------------------|-------------------|
| December, January, February  | 6,243            | 25.3              |
| March, April, May            | 2,780            | 11.3              |
| June, July, August           | 4,055            | 16.4              |
| September, October, November | 11,596           | 47.0              |
| Totals                       | 24,674           | 100.0             |

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