

Sports

Pompoms, Pyramids and Peril



Robert Caplin For The New York Times

If all goes well, the airborne cheerleader, known as the flier, is caught by other cheerleaders. But not always.

By [BILL PENNINGTON](#)

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For decades, they stood by safe and smiling, a fixture on America's sporting sidelines. But today's young cheerleaders, who perform tricks once reserved for trapeze artists, may be in more peril than any female athletes in the country.



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Emergency room visits for cheerleading injuries nationwide have more than doubled since the early 1990s, and the rate of life-threatening injuries has startled researchers. Of 104 catastrophic injuries sustained by female high school and college athletes from 1982 to 2005 — head and spinal trauma that occasionally led to death — more than half resulted from cheerleading, according to the National Center for Catastrophic Sports Injury Research. All sports combined did not surpass cheerleading.

New acrobatic maneuvers have turned cheerleaders into daredevils. And while the sport has retained its

The University of Maryland competing at the National Cheerleaders Association United States Championships held earlier this month at Manhattan's Hammerstein Ballroom

sense of glamour, at dozens of competitions around the country, knee braces and ice bags affixed to ankles and wrists have become accouterments as common as mascara.

With more than 4 million participants cheering at everything from local youth football games to the limelight of the [N.C.A.A.](#) basketball tournament, female cheerleaders now commonly do tricks atop pyramids or are tossed 20 feet in the air to perform twists and flips. If all goes well, the airborne cheerleader, known as the flier, is caught by other cheerleaders. But not always.

Jessica Smith, an 18-year-old cheerleader at Sacramento City College, broke her neck in two places five months ago when a botched stunt dropped her headfirst from a height of about 15 feet.

“They make you sign a medical release when you join a cheerleading team,” Smith said in a telephone interview last week. “They ought to tell the girls that they are signing a death waiver.”

She was the flier during a practice in October, when the team was attempting a new maneuver that called for her to be thrown upsidedown into a handstand, where she would be caught by a male cheerleader perched on two other cheerleaders’ thighs. After trying the stunt once, Smith said, she was uncomfortable trying it again. She relented when coaxed by her teammates.

“But as I was thrown in the air, the cheerleader who was supposed to catch me lost his balance and fell back,” Smith said. “I was inverted and in the air with nothing to stop me from coming straight down on my head. I hit and heard my neck crack. I was screaming after that.”

Smith fractured two vertebrae.

“They tell me I missed being in a wheelchair by one millimeter,” she said.

She endured two months with a halo device bolted to her skull that held her head and neck in place. Although her neck is healing and she has complete use of her arms and legs, she has dropped out of school and her movements remain highly restricted. She said she rarely sleeps at night, awakened by recurring flashbacks of the accident.

“Still, I’m one of the lucky ones,” she said. “Some people don’t walk away from a cheerleading fall.”

Smith has sued Sacramento City College for negligence. Amanda Hamilton, a spokeswoman for the college, declined to comment.

Although the number of cheerleaders nationwide has grown an estimated 18 percent since 1990, researchers did not examine injury rates until recently.

“Everyone thought cheerleading was jumping up and down and yelling to the crowd, which seemed pretty harmless,” said Brenda Shields, the coordinator of an injury research center at the Columbus Children’s Hospital in Ohio. Shields helped author a cheerleading safety article last year in the journal *Pediatrics*.

“No one knew how much cheerleading had changed,” Shields said. “Once we looked at the data, the numbers were a bit of shock, and that’s when we realized the risks involved.”

There were 22,900 cheerleading-related injuries treated in emergency rooms in 2002, up from 10,900 in 1990, according to the Columbus study. The [Consumer Product Safety Commission](#), meanwhile, reported there were nearly six times as many emergency room visits for cheerleaders in 2004 than in 1980.

Noting that many other injuries probably occur but are treated by private physicians without an emergency room visit, Dr. Frederick Mueller, director of the National Center for Catastrophic Sports Injury Research, added, “The real number of cheerleading injuries could be twice as high.”

Leaders of cheerleading organizations counter that with the millions participating, cheerleading is not dangerous for an overwhelming majority. They insist that cheerleading is working hard to become safer. Jim Lord, executive director of the American Association of Cheerleading Coaches and Administrators, did not discount researchers’ findings but said they did not reflect recent, concentrated efforts to reduce risk and increase training for coaches.

“We have pushed safety to the front burner,” Lord said.

The more athletic, more acrobatic era of cheerleading is widely linked to the 1980s, when hundreds of high school gymnastics teams were dropped, partly because school districts grew weary of paying off injury insurance claims for the sport. Many gifted female gymnasts gravitated toward cheerleading and, with their ability and competitive nature, they soon pushed halftime routines far beyond shaking pompoms and waving banners.



Robert Caplin for The New York Times

Samantha Boylan, 17, fainted after a cheerleading routine. in Manhattan this month.



Jim Wilson/The New York Times

Jessica Smith, with her parents Mack and Christine, broke her neck in 2006 during a cheerleading routine.

Three years ago and roughly 100 miles away from Jessica Smith’s West Sacramento home, the San Jose State University cheerleader Rechelle Sneath, who was 18 at the time, fell during a practice and was paralyzed from the waist down. She now uses a wheelchair. In 2005, Ashley Burns, a 14-year-old from Medford, Mass., died after being hurled into the air and landing on her stomach, causing her spleen to rupture. And last year, the Prairie View A&M cheerleader Bethany Norwood, 24, died from complications of a paralyzing fall during a cheerleading practice in 2004.

As noted by cheerleading’s advocates, the number of serious injuries is low when compared with the number of participants, who often cheer year-round. In addition, less-threatening infirmities — sprains, strains and bruises — make up more than 70 percent of all cheerleading injuries.

But several organizations have made it clear that cheerleading accounts for a disproportionate number of

major injuries in youth or college athletics. In 2005, the National Collegiate Athletic Association's Catastrophic Injury Insurance Program found that 25 percent of the

money spent on claims for student-athletes since 1998 resulted from cheerleading. That made it second only to football. The ratio of cheerleaders to football players is about 12 to 100.

After a high-profile injury a year ago to a Southern Illinois cheerleader — her fall from a pyramid was caught on video and broadcast widely — the N.C.A.A. cracked down with new restrictions. The guidelines mandated the use of mats when cheerleaders perform more challenging stunts, and most significantly, college coaches now must take a safety certification course if they want catastrophic insurance coverage.

Inadequate training of coaches is the most frequently cited cause of injuries. Inexperienced coaches will have squads try complex stunts without following accepted step-by-step progressions to acquire the skills required to safely attempt the trick. The coaches association certification, which costs \$75 and is available to coaches of all levels, details proper techniques and procedures.

While the association has vigorously pushed numerous safety initiatives, it has only so much influence over the unconfined cheerleading community. There are more than 75 cheerleading organizations, varying from state to state and region to region, all with their own regulations and competitions.

Even in high school cheerleading, there is no uniformity of regulations nationwide and little statewide control. Many teams routinely do stunts that would be banned in the N.C.A.A. This is largely because most states do not consider cheerleading a sport, so it is not under the aegis of a powerful state athletic association. Instead, cheerleading is labeled an activity, which often means it is regulated by the same state education groups that govern the chess, debate and French clubs.

"Some states don't want to touch cheerleading with a 10-foot pole," said Susan Loomis, the spirit coordinator of the National Federation of State High School Associations who also oversees a coaches education program. "Fifteen to 18 states actually regulate cheerleading. But many, many schools do not follow our rulebook and their coaches are not skilled — sometimes with disastrous results."

At the grassroots level, private, competitive touring cheerleading clubs, known as All-Stars, have sprung up nationwide. These cheerleaders, some as young as 5 years old, never attend games but instead enter the dozens of competitions held every weekend. With annual memberships that can cost as much as \$4,000, and in the pursuit of national championship trophies, All-Stars squads are often obliged to attempt the most demanding tricks.

The level of coaching knowledge and proficiency at private cheerleading gyms tends to be far higher, but so is the level of commitment from the cheerleaders. At competitions, the zest for the sport is evident in a thousand happy faces. Performances are a blur of tumbling bodies, executed

to loud, pulsating music. The stunts are breathtaking, like something out of Cirque du Soleil, but there are frequent near collisions, perilous pyramids and many hard landings.

At a National Cheerleaders Association United States Championships held earlier this month at Manhattan's Hammerstein Ballroom, the participants shrugged off injuries and universally adopted a mentality that would have been at home in a pro football locker room.

Valerie Smith, 18, a cheerleader for New York Cheer, an All-Star squad based on Long Island, was competing with a broken nose sustained in a practice mishap four days earlier. She wore makeup to conceal her still-blackened eyes.

"I haven't seen a doctor yet, because I was afraid he might not let me come to this competition," Smith, of West Islip, N.Y., said with an impish smile. "But when you've been working 10 hours a week for something like this, I wasn't going to let a broken nose stop me. Besides, that's letting down the team."

She said all elite cheerleaders lived by the same motto.

"The glitter, the makeup and the curls in our hair make cheerleading so deceiving," Smith said. "We look like pretty little things. Well, most athletes throw balls around. We throw other cheerleaders around. What's harder? What's harder to catch?"

Smith expects to continue her cheerleading in college. "I can't imagine ever giving it up," she said.

It is not an unusual sentiment, even for those who have been seriously injured.

Chelsea Kossiver, a 15-year-old high school freshman from Satellite Beach, Fla., broke her neck at the end of a cheerleading practice in January as she tumbled down a runway and landed awkwardly. She is recovering and avoided paralysis after five hours of emergency surgery that fused vertebrae with titanium screws, plates and wire.

Resuming her cheerleading career would be against her doctor's orders, but Kossiver did not rule it out.

"Maybe someday," she said. "Cheerleading is not as dangerous as people think."

Jessica Smith, meanwhile, is happy she can now leave her home without the halo device or bulky brace that had been attached to her head and neck. She appreciates the simple pleasure of walking in the neighborhood, though she must stifle the urge to break into a jog. Smith hopes to resume her college studies this summer. Going out for the cheerleading team has not entered her mind.

"I can't even watch the cheerleading I see on TV now," she said. "I look away or leave the room. I know what can go wrong."