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Well

Tara Parker-Pope on Health

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In Basketball, Danger of Head Trauma

By [TARA PARKER-POPE](#)

Stuart Bradford

During basketball practice last year, 12-year-old Nicole Dehart was shooting the ball when a defender tried aggressively to block her shot. The two players made contact, and Nicole hit the floor headfirst.

“The way she was hit took her whole body out from under her, and she landed directly on her head,” said her mother, Christine White, of Pataskala, Ohio. “We immediately knew this was serious. She was very confused and looking at people like she didn’t know who they were.”

At the hospital, doctors diagnosed a [concussion](#) —an increasingly common injury in youth basketball, particularly among girls, yet one that has yet to gain widespread attention.

In fact, Ms. White said, she knew enough to worry about concussions — but when Nicole played soccer, not basketball. “I worried more about broken bones, being that it is a hard floor,” she said. “But the physical contact of basketball is a lot like football inside.”

On Monday, [the medical journal Pediatrics reported](#) that about 375,000 children and teenagers are treated in hospital emergency rooms each year for basketball-related injuries. Notably, the proportion related to [head trauma](#) is on the rise.

In 2007, the last year of the study, about 4 percent of youth basketball injuries were to the head, about double the number of such injuries reported by emergency rooms in 1997.

Over all, about 109,000 children and teenagers were treated for basketball-related head injuries during the 11-year study period, including nearly 12,000 in 2007. Boys were most likely to experience cuts, fractures and dislocations; girls were more likely to suffer head or knee injuries. Among boys, the percentage of head injuries doubled over the period, but among girls, it tripled.

Although all youth sports carry some risk of injury, the data on basketball injuries are particularly important because of the sheer numbers involved. Basketball is the country’s most popular youth sport, played by one million children — 550,000 boys and 450,000 girls — each academic year. And the injury numbers, which were gathered by researchers

at Nationwide Children's Hospital in Columbus, Ohio, reflect only emergency room visits, leaving out the many thousands of injuries treated by clinics, athletic trainers, family doctors and pediatricians.

"A lot of kids play basketball, both organized and unorganized," said an author of the study, Lara McKenzie, principal investigator at the Columbus hospital's Center for Injury Research and Policy. "We probably need to do a better job of educating coaches, athletes and parents. Preventing traumatic brain injuries is going to be pretty challenging."

A separate report in Pediatrics found that basketball accounted for more than 9 percent of athletic concussions among 8- to 19-year-olds, placing it second among youth sports, behind only football (22 percent). Soccer ranks third, at 7.7 percent, followed by hockey and baseball, just under 4 percent each.

Basketball's numbers are inflated, of course, by the large numbers of participants; in terms of individual risk, concussion rates among 12- to 17-year-olds are highest for ice hockey (29 per 10,000 players), followed by football (27), soccer (8), basketball (4) and baseball (3).

Still, the growing proportion of head injuries is troubling. Dr. McKenzie said there were several likely explanations.

The data may reflect increasing levels of competitiveness in youth sports, as well as children playing at younger ages.

And parents and coaches are now much more aware of head injury risks in all youth sports, so they may be more likely to seek medical treatment. News media attention to the risks of concussion for youth and professional football players (including a series of articles in The New York Times) has raised the level of discussion. And some states have passed or are considering laws aimed at curbing concussions in scholastic sports, including mandated education for coaches and immediate removal from play when an athlete suffers a head injury.

"Although we don't think of basketball as a contact sport in the true sense of the word, there is a lot of banging going on," said Mark Hyman, author of "Until It Hurts: America's Obsession With Youth Sports and How It Harms Our Kids" (Beacon Press, 2009).

"Generally, there's an increased awareness that has been slowly building over the past five or six years that when kids complain about symptoms that might seem benign, there may be more going on than we thought."

It's not clear why basketball-related head injuries are rising faster among girls than boys. It may be that the style of play is different. Or it could be that girls and their parents are simply more likely to seek medical attention for an injury than boys are.

Ms. White says that her daughter, now 13, has fully recovered but that it took some time.

After the injury, she complained about headaches and feeling **lightheaded** whenever she was active.

“Even after the doctor had released her to go back to playing, the high school trainer and I worked together and watched her closely,” Ms. White said. “Kids play rougher and tougher than they ever have.”

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