

February 22, 2005

Doctors See a Big Rise in Injuries for Young Athletes

By BILL PENNINGTON

A competitive swimmer since she was 7, Alex Glashow of Barrington, R.I., logged 8,000 yards a day in the pool, until her arms ached. She learned to dislocate one shoulder intentionally to ease the pain in the water, but after shoulder surgery and a year of physical therapy, Glashow quit competitive swimming forever when she was 15.

Jeret Adair, a top young pitching prospect from Atlanta who started 64 games in one summer for his traveling baseball team, last year had Tommy John surgery, an elbow reconstruction once reserved for aging major leaguers.

Ana Sani of Scarsdale, N.Y., a 13-year-old budding soccer star, practiced daily until she tore the anterior cruciate ligament in her knee.

Around the country, doctors in pediatric sports medicine say it is as if they have happened upon a new childhood disease, and the cause is the overaggressive culture of organized youth sports.

"They are overuse injuries pure and simple," Dr. James Andrews, a nationally prominent sports orthopedist, said. "You get a kid on the operating table and you say to yourself, 'It's impossible for a 13-year-old to have this kind of wear and tear.' We've got an epidemic going on."

Typical injuries range from stress fractures, growth plate disorders, cracked kneecaps and frayed heel tendons to a back condition brought on by excessive flexing that causes one vertebra to slip forward over another vertebra. Most are injuries once seen only in adults.

Dr. Lyle Micheli, a pioneer in the field of treating youth sports injuries and director of the sports medicine division of Boston Children's Hospital, said that 25 years ago, only 10 percent of the patients he treated came to him for injuries caused by overuse. Back then, most childhood injuries were fractures and sprains. Dr. Micheli said overuse injuries now represented 70 percent of the cases he sees. In interviews with more than two dozen sports-medicine doctors and researchers, one factor was repeatedly cited as the prime cause for the outbreak in overuse injuries among young athletes: specialization in one sport at an early age and the year-round, almost manic, training for it that often follows.

"It's not enough that they play on a school team, two travel teams and go to four camps for their sport in the summer," said Dr. Eric Small, who has a family sports-medicine practice in Westchester County. "They have private instructors for that one sport that they see twice a week. Then their parents get them out to practice in the backyard at night."

Pushing Children to Overachieve

Dr. Angela Smith, an orthopedic surgeon at the Children's Hospital of Philadelphia, said parents in virtually every sport were pushing their children to excess in pursuit of college scholarships or the dream of a professional sports

career. "The volume of training has increased beyond the maturing young body's ability to handle it," she said.

Doctors lament the loss of what has become a cultural artifact: the playground athlete. Two decades ago, sports for children were often unorganized, with pick-up games common in schoolyards and community parks.

"Children might have played baseball, basketball and football all in the same day," Dr. Micheli said. "This was good for their bodies, which developed in balance. Now young athletes play sports supervised by adults who have them doing the same techniques, the same drills, over and over and over.

"By playing one sport year-round, there is no rest and recovery for the overused parts of their body. Parents think they are maximizing their child's chances by concentrating on one sport. The results are often not what they expected."

In his office in Birmingham, Ala., Dr. Andrews hands the parents of new patients a piece of chalk and points to a blackboard in the corner.

"I say, 'Write down when your child started playing his sport, how many teams he's played for, what camps he went to, for how many years, what private instructors he's seen, what championships he won, what his stats were, all that stuff,' " Dr. Andrews said. "Then I walk out of the room. I come back in and they've filled up the blackboard. They're proud.

"And I say, 'You all know why he's here seeing me?' And I point to the blackboard. That's when the light bulb goes off."

According to several pediatric sports-medicine specialists, not all parents - and they come from all economic classes - see the light so clearly. It is not uncommon for the damage done by an overuse injury to be irrevocable, and the doctor's advice is to quit the sport.

"That's usually not received too well," said Dr. Michael Busch, an Atlanta orthopedic surgeon. "The parents will ask if there isn't some kind of surgery that can be done, so their child can keep doing the things that brought this injury on in the first place. I explain that an operation might be necessary just to alleviate the pain and to set a course for normal everyday use again.

"To tell you the truth, the kids usually take it better than the parents. Many kids are relieved. They can be kids again."

Doctors are also seeing what could be called the Curt Schilling effect in their examining rooms. Schilling was the Boston Red Sox pitcher who underwent a radical medical procedure - a ruptured tendon sheath in his ankle was sutured in place - so he could pitch in the postseason last year.

"I recently had a mother ask me if there isn't some kind of shot or fix-it procedure I could do for her 11-year-old daughter's ankle so she could be ready for an upcoming regional competition," Dr. Smith, the Philadelphia orthopedist, said. "I told her that if it were the Olympic Games coming up, perhaps we could treat this situation differently. But as far as I understood, her upcoming competition wasn't the Olympics.

"At this point, the daughter is giggling but the parent is in the corner crying. I said: 'This isn't Curt Schilling in the World Series. It's not worth not being able to run anymore for a plastic gold-plated medal.' "

The doctors who treat young athletes said they were proponents of youth sports, which they said were vital to the health of America's children. Participation in sports should be encouraged, the doctors said, but with certain

precautions.

"I agree there are more overuse injuries, but I am still more worried about the high rate of inactivity and obesity in children," said Dr. William O. Roberts, president of the American College of Sports Medicine. "We need more kids to do a lot more and a few kids to do a little less."

It's also true that not all young athletes, maybe not even a majority, break down from overtraining even after years of rigorous workouts. But doctors warn that many young athletes will not complain about pain from sports because they believe it is just soreness, or part of the price for overachieving.

Learning to Play in Spite of the Pain

"My arm hurt for years but I never went to the doctor," said Jeret Adair, 16, the Atlanta pitcher, who underwent the surgery named for the Major League Baseball pitcher on whom it was first performed 30 years ago. The surgery involves removing a healthy tendon from one arm and inserting it into the other. Jeret had Tommy John surgery last year after the ulnar collateral ligament in his right elbow snapped in two as he was delivering a pitch.

"You know, like they say, you play with pain. If you're a good pitcher on a team of 14- or 15-year-olds, you're going to be throwing too much. Everybody wants to throw their ace out there."

Jeret was one of 51 high school pitchers upon whom Dr. Andrews performed elbow reconstructive surgery last year, a tenfold increase from a decade ago.

One approach to limiting overuse injuries involves training that is specially designed to prevent injuries.

Vinny Sullivan, a certified strength and conditioning coach and director of sports performance at Formé Health and Fitness in Scarsdale, said he saw more than 300 young athletes a week in a program designed to reduce overuse injuries. Mr. Sullivan has his athletes do exercises to correct muscle imbalances brought on by overtraining in a single sport. He works on their flexibility, balance, and running and jumping biomechanics.

Of special focus is teaching young athletes how to decelerate correctly, because many knee injuries result from a sudden stop or change of direction.

Among Mr. Sullivan's pupils is Ana, the soccer player, who came for help as a 13-year-old after tearing the anterior cruciate ligament in her left knee. The injury occurred without contact from another player as she was running down the field. She had recently stopped playing other sports to concentrate on her soccer.

"Ana is a phenomenal soccer player, but her hamstring muscles were much weaker than the rest of her leg structure," Mr. Sullivan said. "Her body hadn't developed anything but the muscles to play soccer."

After a 10-month rehabilitation, Ana returned to playing soccer - on three teams at the same time no less - and at 18, she just completed her first season at Williams College in Williamstown, Mass. She recently tore the meniscus cartilage - which helps distribute body weight evenly - in the same knee she hurt when she was 13.

"I don't know if it's a coincidence or not," said her mother, Ana Cristina Sani, "but she hadn't been in her injury prevention program while at college, and that's when she hurt her knee again."

Dr. Micheli, of Boston Children's Hospital, and many of his colleagues said they believed that better coaching would help reduce overuse injuries among children.

"The coaches are volunteers and mean well, but they are not trained," Dr. Micheli said. "And every five years, a new batch comes along and the problems go on unabated. We are vigorously promoting mandatory coaching certification programs where youth coaches can get the education they need to protect the children.

"I think town leaders will eventually say to soccer leagues, 'We'll give you the access to our fields but we want certified coaches.' "

Dr. Andrews advocates a laundry list of changes. It begins with stopping year-round play in one sport. "At least three months off," he said. For baseball and softball pitchers, he would also ban the radar gun.

"That thing has wrecked more arms," he said. "I'm sick of seeing these kids being torn apart."

Efforts to Reverse the Trend

Next month, a public-service campaign to educate young athletes, their parents and coaches about overuse injuries will be started through a partnership of the American Academy of Orthopedic Surgeons and the National Athletic Trainers' Association. The campaign includes a poster that shows a youth baseball team celebrating after a game with the headline: "What will they have longer, their trophies or their injuries?"

Alex Glashow still goes to the pool, helping out as a lifeguard. "I can stay involved in other ways," she said. She tried diving, but that bothered her shoulder, too. She has recently devoted more time to another sport, skiing.

Jeret Adair is tossing a baseball again and is hopeful about returning to pitching - with a strictly enforced pitch count - by this summer. He wants to pitch in college.

"I'm the living example of someone who did too much," Jeret said. "I would tell young kids coming up now: 'Don't be such a hero. Take a rest.'"

"I look back now at all those games I won when I was 14 or 15. They don't mean so much anymore. They weren't worth it."

Bruce Weber contributed reporting for this article.