

Teen girls have more sports-related knee injuries

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In this April 8, 2011, file photo, Aliya Mustafina of Russia gets assistance after suffering from an injury at the vault during the women's individual all-around gymnastics final of the Artistic Gymnastics European Championships in Berlin, Germany. Photo: AP Photo/Gero Breloer,File

Be careful of your knees, girls.

A new U.S. medical study has found a rise in injuries to one of the knee's four major connective tissues, or ligaments — the anterior cruciate ligament (ACL), which runs diagonally across the knees and attaches muscle to bone. What's more, it appears that girls are more likely to get this injury than their male friends.

The new study shows that girls playing the same sport as boys are 2.5 to 6.2 times more likely to have an ACL injury. A similar Norwegian study found that girls ages 10-19 had a 76 in 100,000 chance of tearing their ACL; boys in that same age range had a 47 in 100,000 chance of the same injury.

About 70 percent of these injuries happen when there is no contact with another player at all.

Pop Goes The Knee

Usually, you feel a pop in the knee and then see swelling, says orthopedic surgeon Dr. Randall Schultz, who works with bone and joint injuries. Sometimes it will hurt — other times, the pain might not be that bad, he said.

It's not something you have to go to the emergency room for, he says, but you should see a doctor the next day or after the weekend is over to see what's going on and what needs to be done. In the meantime, put ice on it and use crutches to try to stay off it, Schultz says.

Sports where kids stop suddenly and turn a different direction usually are the common offenders — these include soccer, gymnastics, volleyball and basketball. Boys also saw problems in football which, unlike the others, is a contact sport. Locally, doctors see injuries arising from all of these sports, along with cheerleading and dance.

Playing One Intense Sport Could Be A Cause

The risk goes up for girls once they hit age 12 or 13 and for boys around age 14 or 15. Why? Puberty. This is the time when kids grow faster and their bodies can't always keep up, which is especially true of the leg's tibia and femur bones. For girls, hormones also make the ligaments more lax. In boys, the testosterone surge actually helps them increase muscular power and control, allowing them to better handle the rapid skeletal growth.

The number of kids with ACL injuries is on the rise because more kids are focusing on one sport intensely all year, with few breaks. This is very different from the old habit of kids playing a variety of sports with time off in between seasons.

The treatment now is also different. It used to be that you would simply keep the knee from moving, but now ACL tears require surgery to replace the ligament. After the surgery, athletes usually face six months of rehabilitation exercises before they can return to sports.

Even with treatment, an ACL injury can have long-lasting effects, however. Athletes who had an ACL injury are 10 times more likely to have early-onset degenerative knee osteoarthritis than those who never had an ACL injury.

"I have daughters that play sports — I'm worried about it," Schultz says.

A study of athletes older than 18 with an ACL injury found that only about half were able to return to their previous level of performance.

Once you have an ACL injury, you also are 15 percent more likely to have another, a study showed.

Prevention Is Possible

So, what does all this research mean for parents, and for their daughters (and sons)?

Consider choosing sports programs with an athletic trainer who is leading kids through knee-saving exercises.

Physical therapist Bethany Thoresen says prevention is all about strengthening the knees. It's about doing exercises that are going to strengthen the hips, quads, hamstrings and glutes as well as build core strength. Pilates is great for that, she says.

Thoresen also recommends that kids who are active in sports see a physical therapist or trainer *before* an injury happens. The professional will look at how kids jump and at how much control they have over their muscles. It's good to be able to identify areas of weakness. Trainers or therapists will then show kids how to do exercises to strengthen those weak areas.

While you can download exercise videos, don't leave it at that, Thoresen added: To prevent injury, a professional should check to make sure the exercises are being done properly.

Parents also should get realistic about how much sports kids are doing. Kids should have days off and should be doing different activities — if a child is doing the same sport all year, she is overusing some muscles and not strengthening others.

"It's too much," Thoresen says. "They are not ready for it."

Quiz

- 1 Which of the following is one of the symptoms of anterior cruciate ligament injury?
- (A) a tear in tibia
 - (B) swelling of knees
 - (C) rapid skeletal growth
 - (D) increase in testosterone levels

- 2 Why are girls more prone to anterior cruciate ligament injury?
- (A) they reach puberty at an early age
 - (B) they have a more rapid skeletal growth than boys
 - (C) they are associated more with sports responsible for the injury
 - (D) hormones make their ligaments more susceptible to the injury

- 3 Read the sentence from the article.

What's more, it appears that girls are more likely to get this injury than their male friends.

Select the sentence that uses the word "appear" the same way as used in the sentence above.

- (A) All of a sudden, some smoke appeared overhead.
 - (B) The criminal appeared before the court.
 - (C) The book appears to have already been read.
 - (D) The rain would appear once the clouds gathered overhead.
- 4 Read the sentence from the article.

Boys in that same age range had a 47 in 100,000 chance of the same injury.

What is a synonym for the word "range" as used in the above sentence?

- (A) area
- (B) collection
- (C) span
- (D) variety