Knee Injuries Main Cause of HS Sports Surgeries

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THURSDAY, May 29 (HealthDay News) -- Knee injuries are the most common reason for high school sports-related surgeries, say researchers who analyzed data on nine high school sports at 100 U.S. high schools.

The sports included were boys' football, soccer, basketball, baseball and wrestling, and girls' soccer, volleyball, basketball and softball.

Overall, the knee was the second most frequently injured part of the body. The highest rates of knee injury occurred in boys' football and wrestling, and in girls' soccer and basketball. The most common knee injuries were: incomplete ligament tears; contusions; complete ligament tears; torn cartilage; fractures/dislocations; and muscle tears.

The study, conducted at the Center for Injury Research and Policy (CIRP) of the Research Institute at Nationwide Children's Hospital, is published in the June issue of The American Journal of Sports Medicine.

"Knee injuries in high school athletes are a significant area of concern," study co-author and CIRP principal investigator Dawn Comstock said in a prepared statement.

"Knee injuries accounted for nearly 45 percent of all sports-related surgeries in our study. Knee surgeries are often costly procedures that can require extensive and expensive post-surgery rehabilitation and can increase risk for early onset osteoarthritis. Without effective interventions, the burden of knee surgeries and rehabilitation will continue to escalate as the numbers of high school athletes continues to grow," Comstock said.

Comstock and colleagues identified a number of differences between males and females. Boys had a higher overall rate of knee injury, but girls' knee injuries were more severe. Girls were more likely to miss more than three weeks of sports activity after a knee injury (compared to less than one week for boys) and were twice as likely to require surgery.

In addition, girls were twice as likely to suffer major knee injuries due to non-contact causes such as landing, jumping or pivoting.

The study also said illegal play was a risk factor for major knee injuries. Illegal play was a contributing factor in 5.7 percent of all knee injuries, but 20 percent of knee injuries resulting from illegal play required surgery.

Athletes, parents, coaches and officials must be made to understand that illegal play has the potential to cause serious injury, the study authors emphasized.
They added that this type of research can help reduce risk.

"The study of knee injury patterns in high school athletes is crucial for the development of evidence-based targeted injury prevention measures. We know that sports injury rates can be decreased through such efforts," Comstock said.

More information

The National Institute of Arthritis and Musculoskeletal and Skin Diseases has more about sports injuries.

SOURCE: Nationwide Children's Hospital, news release, May 22, 2008