

Kids who specialize in one sport may have higher injury risk

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Competitive young athletes are under increasing pressure to play only one sport year round, but such specialization could increase the risk of injuries, a Loyola University Health System study has found.

Preliminary findings of the ongoing study included 154 athletes from all types of sports, with an average age of 13. They came to Loyola for sports physicals or treatment of injuries. The injured athletes had a significantly higher average score on a sports specialization scale than athletes who weren't injured.

"Young athletes who were injured tended to have more intense specialized training in one sport," said Dr. Neeru Jayanthi, medical director of primary care [sports medicine](#) at Loyola and senior author of the study. "We should be cautious about intense specialization in one sport before and during adolescence. Parents should consider enrolling their children in multiple sports."

Jayanthi presented the findings May 2 at the annual meeting of the American Medical Society for Sports Medicine in Salt Lake City.

The current study is a follow up to an earlier study of 519 junior tennis players, in which Jayanthi and colleagues found that players who specialized in tennis were more likely to be injured during tournaments than players who participated in multiple sports.

Jayanthi said findings from the studies provide new support for an

American Academy of Pediatrics 2000 policy statement on intensive training and sports specialization in young athletes. The academy said kids should be discouraged from specializing in a single sport before adolescence. Young athletes "should be encouraged to participate in a variety of different activities and develop a wide range of skills."

The current study included 85 young athletes who were treated for [sports injuries](#) and a comparison group of 69 noninjured athletes who came to Loyola for sports physicals.

Researchers graded athletes on a six-point sports-specialization score:

- Trains more than 75 percent of the time in one sport.
- Trains to improve skill or misses time with friends.
- Has quit other sports to focus on one sport.
- Considers one sport more important than other sports.
- Regularly travels out of state.
- Trains more than eight months a year, or competes more than six months.

On the six-point scale, the average sports-specialization score of uninjured athletes was 2.75, while the average score of injured athletes was 3.49.

The study found that 60.4 percent of the injured athletes specialized in sports, while only 31.3 percent of the uninjured athletes specialized. (Athletes who scored above 3 on the six-point scale were considered

specialized.)

Uninjured athletes spent a total of 8.8 hours a week playing organized sports, while injured athletes spent 11 hours. However, this finding had a P value of 0.07, meaning that it fell just short of being considered statistically significant.

Jayanthi said results of the current study are preliminary. Researchers from Loyola and Children's Memorial Hospital in Chicago are enrolling additional athletes, and the athletes will be evaluated every six months for three years. This research will further assess the risk of intense training during growth spurts. The collaborative study has received a prestigious research grant from the American Medical Society for Sports Medicine.

Jayanthi said young athletes should be closely monitored for injuries, especially if they spend 11 or more hours a week in a single organized sport or more than 20 hours a week in all sports.

Injuries in young athletes include minor conditions such as muscle strains and knee cap pain, overuse injuries such as rotator cuff tendonitis and Osgood-Schlatter disease (painful lump below the kneecap) and severe injuries such as abnormalities in knee cartilage and stress fractures in the spine.

While [young athletes](#) are specializing in all major sports, Jayanthi said the most intense specialization occurs in certain higher skill sports such as tennis, gymnastics and dance.

Provided by Loyola University Health System

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