

Sports specialization, hours spent in organized sports may predict young athlete injury

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Athletes ages 8 to 18 who spend twice as many hours per week in organized sports than in free play, and especially in a single sport, are more likely to be injured, according to an abstract presented Monday, Oct. 28 at the American Academy of Pediatrics (AAP) National Conference and Exhibition in Orlando.

The study, "Risks of Specialized Training and Growth for Injury in Young Athletes: A Prospective Cohort Study," found athletes who played more hours per week than their age – for example, an 8-year-old who played more than 8 hours per week – were more likely to be injured. In addition, athletes who spend more than twice as much time in organized [sports](#) than in [free play](#), whatever their age or sport, are more likely to be injured and have serious overuse injuries.

The study involved more than 1,200 child and adolescent athletes who came to one of two Chicago hospitals and affiliated clinics for either a sports-related [injury](#) or a sports physical. Researchers collected information from each patient at enrollment, including the intensity and length of training, degree of sports specialization, Tanner stage (a measure of physical development), and height and weight. The same data was collected from each participant at 6-month intervals for up to three years between 2010 and 2012.

The degree of sports specialization was determined by a 6-point score based on whether or not the athlete: Trains more than 75 percent of the time in one sport; trains to improve skill; 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 per year.

"The [young athletes](#) who more intensely specialized in a single sport were more likely to have an injury and a serious overuse injury," which typically keeps athletes out of play for a longer period of time, said lead study author Neeru Jayanthi, MD.

There were 837 injured participants with 859 unique injuries, and 360 uninjured participants. Injured athletes were older than uninjured athletes (14 +/- 2.2 years vs. 12.9 +/- 2.6 years), reported a higher average number of hours per week playing organized sports (11.3 +/- 6.9 hours vs. 9.4 +/- 8.2 hours), and higher average hours per week in total sports activity including gym, free play and organized sports activities (19.7 hours +/- 9 hours vs. 17.6 +/- 10.3).

Injured athletes also had significantly higher sports specialization scores than uninjured [athletes](#) (3.3 +/- 1.6 vs. 2.7 +/- 1.6), even after adjusting for hours per week in total sports activity and age.

"We found that kids on average play organized sports nearly twice as much as free play," said Dr. Jayanthi. "Those kids who exceed that two-to-one ratio are more likely to be injured."

"Our next goal is to research whether educating parents and kids about this ratio of time spent in sports versus free play, and providing them with more specific guidelines, will reduce [overuse injuries](#) in youth sports," said co-investigator Cynthia R. LaBella, MD, FAAP.

More information: To view the abstract, "Risks of Specialized Training and Growth for Injury in Young Athletes: A Prospective Cohort Study," go to aap.confex.com/aap/2013/webpro...ress/Paper21503.html

Provided by American Academy of Pediatrics

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