

## Health &amp; Science

# Many kids are overdoing it when it comes to sports, and that's dangerous

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Last spring, a student I was tutoring told me his back hurt. The boy, a 14-year-old in Northwest Washington, had played on school and travel soccer teams in the fall. Despite his pain, he was still playing travel ball, competing in weekend tournaments and practicing twice a week. I watched him struggle to squeeze in schoolwork around these commitments — even when he was reduced to lying on the floor with his feet up against the wall as we worked to prepare him for quizzes.

After a few weeks of this, he saw a doctor, who diagnosed a spinal stress fracture. In an email to me, his mother faulted all the soccer he had played — even after his back began to hurt.

This story is hardly unique. Every year, thousands of kids suffer injuries — including stress fractures and jumper's knee — caused by intense sport specialization and overuse. As a tutor and a medical writer, I see how students are affected. Having suffered from overuse injuries when I was a youth athlete, I also know how they feel.

Injuries from specializing in one sport at a young age have long been discussed in medical journals, [and it remains an ongoing issue](#). Meanwhile, studies reject many of specialization's purported benefits, finding that it leads to overuse injuries and emotional burnout among pre- and early adolescents — often without generating the competitive advantage promised over multi-sport athletes. That said, are we finally ready to address this problem?

In September 1989, the American Journal of Sports Medicine published "[The accident-prone and overuse-prone profiles of the young athlete](#)," an article that found muscle and ligament issues among college freshmen who specialized in a sport. "The overuse-prone profile is mainly based on physical traits: A combination of muscle weakness, ligamentous laxity, and muscle tightness predisposes [such athletes] to stress injuries."

## Overdoing it

By coincidence, I played football as an 11-year-old that fall, then in winter competed on two basketball teams and in spring played on two baseball teams. I continued this pattern for a couple of more years.

During the spring of my freshman year of high school, though, my right knee began to ache. I told nobody about it, practicing or playing nearly every day even as a sharp bone began to protrude out of the joint, masked only by a stretched layer of skin.

After meekly running out a ground ball during one game, I limped back to the dugout. My coach — a friend's father who had known me since I was 7 — pulled me aside. My doctor — also my father — jogged down from the stands and demanded that I show him my leg. I was later diagnosed with Osgood-Schlatter disease, a painful condition that occurs during adolescent growth spurts and more often in people who participate in running and jumping sports that put stress on bones and muscles (and caused the bone to protrude from my knee). I was lucky. I missed only two weeks of action, and was able to play the rest of the season wearing a felt brace on the knee.

I clearly overdid it with too much running and jumping sports, then failed to say that I was hurting. I was a hyperactive, stubborn kid who loved sports.

Today, the issue is often that parents, kids and coaches feel the pressure to pick one sport to specialize as the best way to become an elite athlete. It's not just because of the premium on being "best" in something; there's also a financial incentive to make a child stand out for a college scholarship, or, however unlikely, a future in professional sports.

### **Peer pressure**

And they want to keep up with the Joneses: The father of another teen I was tutoring last year explained to me that, because his son wanted to excel in soccer and because the family could afford the travel, what choice did he have but to fly his son to tournaments on weekends, like other players?

Moderating sports time "can be a hard concept for parents to accept," Kelsey Logan, a sports medicine director in Cincinnati, wrote in the *Journal of Pediatrics* last year, "as we seem to have adopted the 'more is better' culture when it comes to sports." One result: "With this hyperfocus [come] stressors for which the immature skeleton is not prepared. Accordingly overuse injuries are a common reason to visit pediatricians and sports medicine specialists."

In fact, sports researchers have recently found that specialization leads to overuse injuries, with risk increasing in proportion with degree of specialization. It also stifles motor-skill development in preadolescents, increasing injury risk. A [study published in February](#) found that high school athletes who played one sport for more than eight months in a year were nearly three times as likely as others to suffer overuse knee injuries, for example. Playing only one sport and doing it year-round are the chief catalysts for the dozen overuse injuries that pediatrician Brent Thibodeaux, who practices in Northern Virginia, examines every week. (Until recently, I was a writer for Thibodeaux's medical group, and I have worked with him.)

Parents and kids often ignore doctors' advice; worried about what taking time off will do to the youth's status on a team, the child returns to action before injuries have healed.

Thibodeaux's consultations often turn into negotiations, he says. When he recommends that athletes rest for two weeks after an injury, they often respond: "Two days?" He recalls one high school pitcher saying it was "not an option" to sit for two weeks with pain often referred to as Little League elbow (the result of oversteering the growth plate inside the elbow). The boy had college showcases coming up and games to play. "Usually I can get the kids to agree to three to five days off" at most, Thibodeaux says.

### **Hiding the pain**

For every kid like my tutee, who acknowledged his pain and followed doctor's orders to rest (if kicking a soccer ball against the wall constitutes rest), there are many others who try to hide it, like I did, and play through the pain.

But by hiding an overuse injury or returning to action too soon, Thibodeaux says, kids risk sustaining major injuries such as ligament tears and broken bones, which can sideline them for far more than two weeks. But, he adds, "parents don't think that will happen to their kid."

As for the adults on the field, many coaches are paid to improve kids' skills and win games — even at the youth level — and they get very invested in both tasks. But, Thibodeaux says, ultimately "it's a parent's responsibility to say, 'This is enough.' They've got to stick up for their kid, who is still a minor."

Kids who don't slow down when injured can suffer debilitating effects from overuse injuries that last into adulthood, according to new research, including, [counterintuitively, burnout and "lost development of lifetime sports skills."](#)

### **The latest research**

If kids and parents don't pay attention to their doctors' advice, they should at least spend some time with the latest research on how to best nurture athletic success. It turns out that the much-ballyhooed 10,000-hours rule for mastery of an activity may not be the best way to become an elite athlete. Instead, researchers suggest that engaging in unstructured activities and sampling multiple sports before adolescence best predict long-term athletic success (and psychological maturity, to boot).

"Sport samplers, who have had the opportunity to develop essential fundamental motor skills, will have many different sports available to them across the life span," the researchers wrote in *Kinesiology Review* last year. "Sport sampling in the formative youth years is clearly superior to early sport specialization."

National organizations agree with this perspective; the American Academy of Pediatrics, the American Medical Society for Sports Medicine and the National Strength and Conditioning Association recommend

against early sports specialization.

In addition, free play is getting a renewed push as a more healthful way to develop athleticism in young people.

“During free play, when a child gets cold, tired, hungry, bored, or sore, she or he will typically stop,” researchers wrote last year in the American Journal of Sports Medicine, of children ages 7 to 18. “But when being supervised by an adult or when participating in organized competition, the child may feel an expectation to continue and therefore be more likely to push through pain or soreness.”

I may not have listened to that advice as a kid. Pushing through pain or soreness was what you did.

But today I encourage my tutees and others to do what I say, not what I did: Stop pushing through the pain. Go see your doctor if something hurts. Enjoy sports. Don’t wait until a bone is protruding from a joint to act.

 **Comments**