



Rules of Engagement

The benefits of physical fitness for kids are hard to overstate. Here's how to encourage well-rounded athleticism while minimizing the risk of injury.

We sign them up for teams and make sure they get to practice. We cheer and console them. We even give over our weekends to watch them take to the field, court, track, pool, or rink. Why?

Because we know how important it is for their little bodies to run, kick, leap and swing. And not just their bodies. We know that the hustling, sweating, and scoring are as good for their psyches as they are for their physiques.

For all the benefits sports can provide, however, experts say it's critical that parents set limits for kids. According to the Centers for Disease Control, more than 2 million high school athletes and more than 3.5 million kids under age 14

receive medical treatment for sports injuries each year. "Kids are playing harder and faster every year, it seems," says Dr. Gerald Grant, chief of pediatric neurosurgery and concussion expert at Stanford Children's Health.

While a knock to the head should certainly raise alarm bells for parents, concussions aren't the only concern.

More than half of all sports injuries in middle and high school students are caused by overuse of particular muscles, something that's starting to affect younger athletes, too. "We're definitely seeing an increase in overuse injuries, and at a younger age, in our practice," says Dr. Meghan Imrie, clinical assistant of pediatric orthopedic surgery at Stanford Children's Health. Experts attribute the uptick in repetitive-stress injuries to the trend toward focusing on one sport at an earlier age. The American Orthopedic Society for Sports Medicine, for example, reports a five-fold increase between 2000 and 2009 in serious elbow and shoulder injuries among youth baseball and softball players.

The problem is that kids are committing to one position and often playing without an off-season. "Parents have been sold a bill of goods that kids need to work out year-round in the same sport," says Tim Brown, former wide receiver for the Oakland Raiders and NFL Hall of Famer. "I coach the track team at my daughter's school, and I remind them on a weekly basis that a big part of working out is rest."



Top, Photo: Priscilla Cragg; bottom, Kim Myers Robertson/Trunk Archive



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Imrie recommends that at the first sign of pain—whether that's a soccer player's inflamed kneecap or a baseball player's sore elbow—kids should sit out until the pain resolves (which may be a day, or may be weeks). When the pain is gone, they can ramp up their activity level. For the most part, overuse injuries are not permanent, particularly if they're caught early. "The more concerning thing," says Imrie, "is if a child is in pain, they're not playing 100 percent, and can make a mistake on the field that results in a more acute injury."

The Centers for Disease Control, whose guidelines state that children 6 and older should get 60 minutes of physical activity every day and recommend that the activity include aerobics as well as muscle- and bone-strength building, advises parents to find ways of getting their kids moving that are age-appropriate, enjoyable, and offer variety.

Imrie also suggests getting kids to try activities other than their main sport—advice that's echoed by professional athletes.

"By playing different sports, you are using different muscles, thereby giving other muscles rest," says Brown. And there are other reasons too: "What you learn on the basketball court about your skills will be totally different than on the football field," he says. "Playing multiple sports makes for a more well-rounded athlete, not a one-trick pony."



INCREASE OF CONCUSSION

Whether your child heads a soccer ball too hard or gets tackled on the football field, it's always best to err on the side of caution when it comes to head injuries, says Stanford Children's Health chief of pediatric neurosurgery Dr. Gerald Grant. Here's his advice for parents.





Monitor your child

Headache, dizziness, vertigo, and having trouble focusing are all common symptoms of a concussion. Kids also report “just not feeling like themselves” after a concussion, says Grant. He notes that girls tend to report milder symptoms, such as drowsiness or noise sensitivity, than boys, even when their injury is just as severe.



Take a time-out

At Stanford, children with head injuries are told to stop playing a sport until symptoms subside, “but they’re no longer put in a dark room like the old days,” says Grant. Instead, he says it’s best to let kids return to a more low-key version of their normal life, with check-ins at the doctor (at Stanford, doctors check things like balance and eye tracking, but also talk to parents about their child’s attention span and school performance). “We also now encourage return to aerobic fitness much sooner as long as there is no risk for contact. The goal is to return the child back to ‘brain health,’” says Grant. Once a doctor signs a release, typically within a week or two, a child can get back in the game.



Get medical attention

For the above symptoms, go to your doctor; for red flags like sleepiness, vomiting, or a worsening headache, go immediately to the ER.



Teach kids to be honest

Most head injuries do not affect kids long-term, provided they speak up about their symptoms, get them checked out, and take the time to recover.



Meet Dr. Grant

Dr. Gerald Grant, chief of pediatric neurosurgery at Stanford Children’s Health, places a special value on developing relationships with patients and their families. “I just love the family unit,” he says. “I love that our hospital gets to place its focus on kids, and what they need.”

In a single day, he might operate, conduct research on the blood-brain barrier, teach a class to medical students, and also spend time with his wife and three children—all with an amazingly steady demeanor.

It’s a quality he honed while working as a surgeon in the U.S. Air Force. Stationed in Iraq during the war, his team performed surgeries in a tent, through blackouts and under fire. Whether handling countless concussions or removing rocket shells embedded in soldiers’ brains, “I stayed calm by focusing on the mission,” Grant says.

That confidence is reassuring for families who find themselves facing a child’s grave illness or injury. “He didn’t say, ‘I’m going to try to take this tumor out of your daughter’s head.’ He said, ‘I’m going to take it out,’” said Jennifer Zimmerman, whose then 7-year-old daughter, Emily, was diagnosed with a brain tumor the size of a golf ball.

Two years later, Emily is tumor-free and doing all the things a normal 9-year-old kid does. “Kids are so pure,” Grant says. “They just want to get better so they can be kids again. And it feels great to be a part of making that happen.”

Which Sport Is Right for Your Child?

Finding an activity that suits your child's personality sets the stage for a lifelong love of being active.

Action Heroes



Faster than the speed of lightning, your child would literally climb the walls if he could.

Football, martial arts:

“Kids who are more aggressive may enjoy sports like football or martial arts that involve lots of contact,” says John Engh of the National Alliance for Youth Sports.

Social Butterflies



Your child loves nothing more than a party—and is often the life of it.

Baseball, basketball, volleyball:

These are all sports that encourage teamwork, but also allow kids to shine individually, says Engh.

Shy Guys & Girls



Your child takes some warming up (and may cling to your pant leg in the meantime).

Running, swimming, soccer:

Solo sprinting or swimming may be just the thing for kids who prefer alone time. Soccer is also a good option, as it offers the anonymity of a group on the field (versus the pressure of all eyes on the player at bat).

Natural Performers



Your child was dancing and putting on “shows” almost as soon as he or she could walk.

Cheerleading, dance, gymnastics:

These all involve a good amount of showmanship, while also giving kids a workout.



Wherever you need us.

Stanford Children's Health is more than an award-winning children's hospital. We now bring our extraordinary care to pregnant moms, kids, and their families in more than 60 locations—spanning critical care, specialty care, and well care—across the Bay Area. In addition to our nationally recognized Lucile Packard Children's Hospital Stanford, our partnerships with Sutter/CPMC in San Francisco and John Muir Health in Walnut Creek mean that you can now see Stanford doctors in hospitals close to home.

Find a location near you at stanfordchildrens.org