



Little All Stars: Sports Injuries in Young Athletes Can Be Complicated

Taking a comprehensive approach is best.

BY JOLYNN TUMOLO

A child is not a little adult, the adage goes. When treating pediatric sports injuries, Robert M. Conenello, DPM recommends that podiatrists keep close to mind another truism: The child athlete is not a little professional athlete. In this day and age, many coaches and parents—and even children themselves—sometimes forget that.

“There’s just such an overemphasis on winning in everything we do nowadays, and it has trickled down to the kids,” said Dr. Conenello, owner of Orangetown Podiatry in Orangeburg, NY, and a former president of the American Academy of Podiatric Sports Medicine. “Most of the injuries we see are because kids are being pushed beyond their norm.



Dr. Conenello

It’s a parental thing, to be honest, and then social mores, peer pressure, and all that kind of stuff go with it.”

“I remember playing sports in high school, and my parents never came to a game just because they were working. But I’m as guilty as the next; I’ve gone to my kids’ practices just to watch. I just want to see it,” Dr. Conenello reflected. “It has become part of our culture, I think.”

Increase in Injuries

With the country’s growing emphasis on children’s sports has come a par-

allel rise in pediatric sports-related injuries, said Damian Roussel, DPM, podiatrist with The Centers for Advanced Orthopaedics, Frederick, MD.

“I see pediatric athletes in my office quite often. Acute injuries in this population make up approximately 30% of my new patient visits,” said Dr. Roussel. “Over the past 10 years, this population has increased secondary to the increase in number and intensity of



Dr. Roussel

parents and coaches when, fact is, pediatric athletes differ in multiple ways from their fully-grown counterparts. First, child athletes are growing and maturing on their own individual schedules, which may not necessarily match up with those of their teammates. This affects each athlete’s ability, skill, and performance. Second, young bodies perform less efficiently than adult bodies, and children are more

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competitive youth teams with demanding training schedules.”

Another modern trend—the push for children to specialize in a specific sport at a young age and to continue to play it exclusively, even during what was once considered the “off” season—also contributes to overuse and injury in young patients. Amid skyrocketing college tuition costs, many parents are hoping to groom a child for an athletic scholarship. Few students, unfortunately, will ever receive one. (Just about 2% of high school seniors do, CNBC reported in 2014).

Then there’s the “little adult” assumption easily made by overzealous

prone to fatigue from heat and water loss than adults are. “Training programs designed for adults should not be applied to children,” Dr. Roussel said.

Musculoskeletal System Differences

Musculoskeletal systems are also different in childhood compared with adulthood. “Growth of the soft tissues lags behind that of long bones, especially during accelerated growth like puberty. This is why the soft tissues (muscles, tendons, and ligaments) may be inflexible and weak, making them more susceptible to injury,” Dr. Roussel explained. “The growth plates of the

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long bones are also weak areas susceptible to injury. Structural mal-alignments are not uncommon in young growing athletes, which make them more susceptible to overuse injuries.”

In all, some 45 million children participate in organized sports in the United States every year, resulting in an estimated 750,000 sports-related injuries annually, Dr. Roussel said. In his practice, common pediatric injuries and conditions include calcaneal apophysitis, Achilles tendonitis, posterior tibial tendonitis, ankle sprains, ankle fractures, fifth metatarsal fractures, and growth plate injuries.

Influential Adults

Caring for a young athlete is a group activity. Participants include the podiatrist and patient, as well as a parent and often a coach. All have a vested interest in the healing process. The trick is to keep the focus on what is best for the child’s health.

“It is important to include the parents in your assessment and treatment of the injury, as well as in the important

coached Dr. Dutra. “Most kids drop out of sports by their teenage years because they’re not having fun, their friends are not participating, or their parents are pushing them too hard.”

Dr. Conenello recalls a 12-year-old top-tier gymnast who had presented at his practice multiple times with heel,

Treatment Considerations

Complicated social dynamics aside, other things to consider when treating pediatric injuries include whether the child needs absolute, non-weight-bearing rest or relative rest with modified activity; how to keep the rehab program simple, focused, and fun; and clear re-

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shin, and knee pain that was becoming chronic. One day, after her mother excused herself to take a call in the hallway, the podiatrist asked the gymnast a simple question with the power to change everything: *Are you having fun with this?* “This little girl started crying and said, ‘I don’t want to do this anymore. I don’t want to do it, but I’m afraid to tell my mom,’” Dr. Conenello recalled. “I’ll never forget it.”

turn-to-activity guidelines for the child, parents, and coach. “Rehab,” emphasized Dr. Dutra, “is a team effort.”

Podiatrists should investigate the footwear that the child wears, both on and off the field. Dr. Conenello advises sports-specific shoes after age 10 or so during play as well as a good recovery shoe afterward. However fashionable, Old Navy flipflops won’t cut it. “It might not even be the activity they’re doing that’s causing their problem,” Dr. Conenello pointed out. “It’s what they’re wearing afterward or all day long for six or seven hours at school.”

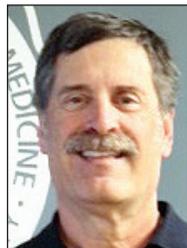
Education on proper nutrition, healthy body mass index, and cross-training can help youngsters learn to prevent injury. Strength assessments that identify asymmetries or weaknesses are other good tools to guide patients on injury avoidance. Be on the lookout for young athletes who may be experiencing relative energy deficiency in sport (RED-S)—a condition once called the female athlete triad but which has been expanded and renamed to include males. RED-S is impaired physiologic function caused by relative energy deficiency that can affect metabolic rate, menstrual function, bone health, immunity, protein synthesis, and cardiovascular health. At first glance, this may seem out of the realm of podiatric injury, but podiatrists treating athletes should understand that it is not.

Dr. Conenello recalled an eighth-grade runner experiencing tibial stress fractures. Discussion with the 14-year-old revealed she had been bumped

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role of offering support and encouragement,” said Tim Dutra, DPM, MS., an assistant professor and clinical investigator at the California School of Podiatric Medicine at Samuel Merritt University, Oakland, CA, and a former president of the American Academy of Podiatric Sports Medicine.



Dr. Dutra

Dr. Roussel bases return-to-play decisions on objective criteria whenever possible. He noted that parents can help ensure that a child complies with a treatment plan; at the same time, they can also sabotage treatment if they pressure a child to return to participation too early.

“Listen for whether the parents or coach are pushing the child too much and if the activity is fun for the child,”

That season marked the athlete’s last as a competitive gymnast. Navigating the conversation with her mother wasn’t easy, Dr. Conenello admitted. Still, he considered it his responsibility to have it. “This kid opened up to me. I had to tread carefully and tell the parent what was going on,” he said. “This is a business, and you have to be careful because the coaches refer new patients. But I will always be ethical and honest. When I tell coaches that a patient cannot participate for a while or they can but only with modifications, they get mad at me sometimes. At the same time, though, they respect me because they know I’m not going to put winning above the health of a patient.”



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to the varsity track team because of her ability. “She was running with seniors, but there’s a big difference between an eighth-grade girl and a varsity girl. Even though she could run like a deer, her body just wasn’t

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ready for that,” he said. “She developed amenorrhea and multiple stress fractures. As doctors, we have to be aware that could be an issue.”

On the opposite end of the spectrum, younger athletes may need to learn the difference between pain and injury. “I’ve had individuals come in

limping like their leg was shot by a cannon,” Dr. Conenello recalled. “I talk to them, make them feel at ease, and by the time they leave my office after a 15-minute appointment, they are hopping on the injured foot.” Often, it comes down to anxiety about temporary discomfort or pain. Through X-rays, dynamic exams, and education on stretches or interventions, podiatrists can ease undue worries and help children understand what is happening in their bodies. “They get over the anxiety and realize, ‘I’m not injured. I’m just in pain,’” Dr. Conenello said. “And that pain is part of sports sometimes.”

For the Love of the Game

A positive aspect to treating sports-related injuries in children is that they tend to heal faster than in adults. “They’re also usually highly motivated with rehab and want to return to activity as soon as possible,” said Dr. Dutra. “Young dancers have been the most fun to work with over the years because they are very determined and tough. It’s hard to keep them off their feet after an injury, especially with competitions and events.”

For many of the dancers at the studio where his daughter took lessons, Dr. Dutra advised physical therapy after injury for rehabilitation, swimming and biking during the healing process to stay active, and taping, padding, and strapping when necessary during active dancing. “Technique, form, and muscle strength all play vital roles in return to activity and injury prevention,” he said.

The key is to keep activity as fun and safe as possible so that young athletes can stay active and healthy into adulthood. The 12-year-old elite gymnast who shed tears in Dr. Conenello’s office that day moved on to other activities she enjoyed more. “She runs in triathlons,” Dr. Conenello said. “She has graduated from college, she’s happy, and she’s still my patient.” **PM**

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