



Pediatric and Adolescent Sports Injuries

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It's Fall again and that means school is back in session and sports teams are back in full swing. It's only September and we've already been seeing the new patients come through the door with a rough start to the new season. It's unfortunate, but with the large enrollment in school and community sports, the injury rate is climbing. Often these injuries are occurring in young kids and teenagers. It's important to understand the mechanism behind these injuries and the differences between the bodies of an adult and a child in order to reduce the risks and manage their care.

Growth plate injuries

One of the main differences between the body of an adult and child (from an injury stand point) is that the child still has open growth plates. These are areas of bones that have not yet turned into bone and are susceptible to injury. In a child, the bone tends to be weaker than the structures around the joint including muscles tendons and ligaments, so when there is an abnormal stress to a joint, the injury tends to occur in the weaker area...the growth plate. Proper diagnosis and management is critical here, as if it is not managed correctly, there can be a premature halt in the growth of the injured bone. The younger the child, the more impact this can cause due to the potential for more growth. Often when a growth plate injury arrives in the emergency room it is misdiagnosed as a simple sprain because they do not always show up on an x-ray. It's important to follow up with someone who specializes in pediatric injuries.

Overuse injuries

Another common injury is called an apophysitis. Some examples of this are Osgood-Schlatter's Disease, Sever's Disease, and Little League Elbow. These also occur in areas where the bone is weak. The pull of the muscles cause repeated microtrauma especially in athletes that lack normal flexibility. In order to avoid the risk of this type of overuse injury, coaches need to understand the appropriate limits for their sport and the flexibility needs of the athlete. There is a lot of research out there, especially in throwing sports, about how much is too much in order to give guidance to help prevent these issues. Athletes need rest and when they are not allowed to do so, the trauma builds up over time and will eventually cause pain and require the athlete to stop playing. This is why early detection and prevention through proper monitoring is important.

Return to sport

There is always a lot of debate as to when it's ok to get back to competition. First things first...child athletes should not be playing if they have pain. If there is pain lasting more than a day after a game or practice, they need to stop and let the injury heal. Some say that after an injury, they can get back as soon as the pain is gone, but this really is not enough. If there was an injury that requires rest (sometimes even something as small as an ankle sprain) this can lead to weakness and a loss of motion at the involved joint. These need to be addressed as well for a safe return to activity. Even when this is corrected, there can be some residual deficits that can be missed as they may only be seen during high level activity or functional testing. It's good to be cleared by someone who is qualified to assess athletes and make an educated decision about when it is ok to go back. When the athlete is ready, it's usually better to start in a practice environment before returning to competition as practice is normally more controlled and there is less pressure to over-perform.

This article is in no way being written to discourage participation in sports, because the benefit outweighs the relative risk, but an understanding of the potential injuries is important to help with prevention and appropriate management. I hope this article will help you understand the challenges that your children are facing and help you find the appropriate management options. At BREAKTHRU, our area of expertise is sports medicine and we are involved with injury prevention programs. Please, use us as a resource to help ensure your child maintains a happy and healthy athletic experience.

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