



Overuse Injuries Are Common in Youth Sports

It is estimated that more than 30 million children between the age of 5 and 17 are involved in organized athletic programs, according to the National Athletic Trainers Association Research and Education Foundation. Large numbers of these children are involved not only with traditional school -based programs, but also club-based programs and summer camps. There also appear to be increasing numbers of children who specialize in one sport at an early age, train year-round for a sport, and sometimes compete in multiple sports at one time. Although these opportunities are a great aspect of youth sports they may also be the most troubling.

Given these circumstances, it is not surprising that overuse injuries that were once commonly associated with adults are now frequent complaints of children. It is estimated that 50 percent of injuries in children seen in sports medicine clinics are classified as overuse injuries.

Overuse injuries occurs when any biological tissue – muscle, bone, tendon, etc. – incurs repetitive loading (activity) without sufficient recovery. This process starts when repetitive activity fatigues one of these specific structures. Without adequate recovery, micro-trauma develops and stimulates the body's inflammatory response ultimately causing injury.

Treatment

Decreasing activity level to the injured area is the first step in treating an overuse injury. By decreasing the loads to the affected area this will halt the overuse process. Complete rest of the area is typically recommended for overuse injuries. In such case as a runner who has a stress fracture of the leg, swimming or cycling can be used in order to keep the cardiovascular system conditioned without placing great amounts of stress on the injured leg. Application of ice to the injured area will assist in decreasing pain and inflammation. Restoring flexibility and strength is also an integral part of the recovery process that should not be ignored.

Prevention

The American College of Sports Medicine (ACSM) estimates that 50 percent of overuse injuries in children are preventable. Today it's not uncommon to hear about a young baseball pitcher who has overworked his arm by throwing too many curve balls. Children rarely suffer from overuse injuries when they themselves control the intensity level, therefore, coaches and other adults should avoid setting high expectations about training intensity.



Guidelines for Reducing Likelihood of Injury:

1. Pre-participation exam
2. Proper adult supervision and coaching: coach should also be CPR/first aid certified.
3. Proper warm-up and cool-down
4. Training programs that emphasize general fitness and avoid excessive training volumes.
5. Keep sports fun: putting too much emphasis on winning can make your child push too hard and risk injury.

Young athletes are more susceptible to injury during times of rapid bone growth, but overtraining and improper technique can also contribute greatly to injury. A good rule of thumb for any training regimen is the "10 percent rule". Total training (intensity, frequency, duration) should increase no more than 10 percent at a time. These types of gradual training progressions can help reduce injury occurrence and maximize benefits and enjoyment in youth sports.

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