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OVERUSE INJURIES IN YOUTH SPORTS

Overuse injuries were once virtually unknown in young athletes. All that changed with the emergence of organized sports and their emphasis on repetitive coaching drills, as well as the recent trend toward sports specialization in young athletes. ***Patellar pain syndrome*** - an alignment problem in the knee caused by overtraining - is today the number one diagnosis in many sports clinics that treat young athletes, even though it had never been seen in kids until the growth in organized sports. Talk of stress fractures, tendonitis and bursitis is no longer confined to pro athletes; today it can be heard in high school locker rooms.

Kid-specific injuries

Certain overuse sports injuries, such as Little League elbow, which refers to shear damage to the growth cartilage in the elbow joint caused by repetitive whipping motions of the arm, are seen exclusively in child athletes because of the softness of their growing bones and relative tightness of their ligaments and tendons during growth spurts.

Other overuse sports injuries seen mostly in children include ***osteochondritis dissecans*** of the knee and ankle (repetitive grinding together of bones in those joints causes damage to the growing surface cartilage and may result in pieces of dead bone and cartilage dropping into the joint and wreaking havoc), ***Osgood Schlatter's syndrome*** (inflammation at the point where the tendon connects the kneecap to the very top of the shinbone) and ***os calcis apophysitis*** (inflammation at the point where the Achilles tendon attaches to the heel).

How significant an issue?

Unlike acute sports injuries such as sprains, strains, bruises and breaks, which the Consumer Products Safety Commission tells us result in four million emergency room visits every year, the exact prevalence of overuse injuries is difficult to ascertain. That's because the symptoms of overuse injuries develop over time and do not require immediate emergency care. Suffice it to say that overuse injuries in kids sports are so common that pediatric sports medicine clinics such as the one at Children's Hospital Boston have opened to respond to the problem. As seen above, we've even had to come up with medical names for many conditions.

A problem with consequences

One of the most disturbing aspects of overuse injuries is their insidiousness. Often kids won't admit to being sore - they just drop out of sports, often for life. When it goes undetected, the damage to a growing child's hard and soft tissues can be permanent. Evidence suggests that overuse injuries sustained in childhood may continue to cause problems in later life - arthritis, for instance.

Prevention is key

As overtraining is the most common cause of overuse injury, the most effective way to prevent overuse injuries is to ensure kids are being coached by qualified personnel. The American Red Cross has just introduced a sports safety course that the U.S. Olympic Committee's panel of experts on youth sports helped design. Urge the coaches in your local youth sports program to contact their local Red Cross chapters for information. Another important measure is to make sure kids have a proper pre-season physical every year to rule out underlying conditions that might predispose them to overuse injury. (Underlying conditions include anatomical abnormalities such as knock knees, flat feet and swayback.) Finally, if kids want to participate in strenuous sports, they should be fit enough to do so. A properly performed pre-season physical should rule out fitness deficiencies and recommend an exercise program.

The Sports Medicine Bible for Young Athletes (SourceBooks, 2002) by Dr. Lyle Micheli is a book filled with important information about how to make a young athlete's sports experience as safe and successful as possible. Visit www.lylemichelimd.com.

This fact sheet was created by Dr. Lyle Micheli and the faculty of the Division of Sports Medicine at Children's Hospital Boston.