



THE YOUNG ATHLETE AND OVERUSE INJURIES

by *Scott Levin, M.D.*

Young athletes of today are spending more time on their sport than ever before. Children not only have the opportunity to play on the school team, but they also seek out extracurricular organized leagues and travel teams. In addition to the rigors of the regular season, many young athletes participate in off-season clinics and camps. Since there is little time for rest from the demands of the numerous activities, these young athletes are experiencing an increase in overuse injuries. Parents must realize that winning isn't everything and the health and safety of the child comes first.

One of the most common injuries involving overuse is pitching in baseball. The professional pitcher who has enjoyed a long and successful career is the one who did not overwork his arm while it was still maturing. Parents must protect their children from overuse injuries and physical damage that can result in lifelong disabilities. The overhead motion involved in the pitch places tremendous stress on both the elbow and the shoulder. This can be especially dangerous to the skeletally immature athlete. Many overuse injuries of the shoulder and elbow are most painful during the early acceleration phase of the windup, which is demonstrated in the photo. Since young ballplayers are very enthusiastic about playing, they often do not complain about problems they may be having with their elbow or shoulder. Parent must be vigilant and look for warning signs of overuse and arm fatigue.

One classic injury in the young pitcher is known as "Little Leaguer's Elbow." This is essentially a traction injury on the growth plate of the inside part of the elbow. This generally responds to a brief period of rest, followed by rehabilitation

with a gradual return to throwing activities. In the older pitcher that is skeletally mature, the injury occurs in the medial collateral ligament of the elbow instead of the growth plate. These are the pitchers that may go on to need the well-known "Tommy John Surgery." A similar overuse injury in the young pitcher's shoulder (referred to as "Little Leaguer's Shoulder"), is related to a traction injury to the growth plate on the top of the humerus. Another common overuse injury in the shoulder for pitchers of all ages is referred to as internal impingement. Due to the repetition of overhead throwing, the structures in the front of the shoulder get stretched out, while the structures in the back of the shoulder get very tight. This changes the dynamics of the shoulder and may result in impingement of the labrum. Fortunately, this often responds to a rehabilitation program with a focus on stretching the structures in the back of the shoulder.

More than 2.9 million children will participate in little league games this year. As the demands placed on these young athletes continue to intensify, the likelihood of overuse injuries will rise as well. It is very important for athletes, coaches and parents to be able to recognize these symptoms early. The old adage of "no pain no gain" does not apply in these instances, and it is not a good idea to "fight through the pain." Fortunately, many of these injuries respond to a brief period of rest and rehabilitation, with a gradual return to the sport-specific activity. The sooner the athlete seeks medical attention and receives the appropriate treatment, the better chance they can return to play at an effective level.



By employing a few common sense tips, you can keep your young athlete safe and healthy while they enjoy playing the game.

- limit the amount of throwing that a child does at the beginning of the season.
- build up arm strength and endurance gradually
- don't graduate a child from throwing to pitching until the child is between ages 8-10
- pitchers under age 13-14 should focus on fastballs and change ups.
- No curve balls until age 13-14 at the earliest. Safe mechanics are difficult to master before this age.
- Limit the number of pitches that a child throws per week.

The following websites can provide more information on overuse injuries in children:

[http://www.med.nyu.edu/patientcare/library/\(NYU/Hospital for Joint Diseases\)](http://www.med.nyu.edu/patientcare/library/(NYU/Hospital%20for%20Joint%20Diseases))
www.littleleague.org