

Overuse Injuries in Youth Baseball & Softball Players

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A lot of children participate in baseball and softball every year. With growing competitiveness, there is an increase in the frequency and intensity in which these sports are played. These factors increase the demand placed on the throwing shoulder and elbow, increasing the risk of injuries due to overuse.

Overuse injuries occur when the athlete is throwing too much or does not have enough rest periods between throwing. Improper warm-up, decreased flexibility, and weakness of the shoulder and elbow musculature are also contributing factors that increase the risk of injury.

What to look for to assess for an overuse injury:

- Complaints of pain in the shoulder or elbow during throwing or at rest after throwing.
- Decreased distance of throws with pain following.
- Changes in normal throwing form
- Facial expressions and grasping of injured area
- Increased swelling in the area of complaint
- Tenderness with palpation to area of discomfort
- Decreased range of motion in affected joint
- Pain with movement of affected joint.

It is important to pay attention to signs and symptoms the athlete might have to prevent further injury from occurring. Rest and ice help significantly with early stages of pain. If the athlete had pain for extended periods of time, further evaluation from a professional health care provider will help to assess the underlying factors contributing to the injury. This will also assist the athlete in a quicker return to sports activities.

Common Overuse Injuries:

- *Lateral epicondylitis* (tennis elbow) - microtrauma caused by repetitive stresses during throwing phase.
- *Medial epicondylitis* (golfer's elbow) – microtrauma caused by repetitive throwing, more prominently seen in pitchers.
- *Shoulder instability* – during the throwing phase the shoulder moves through extreme ranges of motions, gradually stretching the capsule & ligaments of the shoulder.
- *Rotator cuff tendonitis* – repetitive overhead activities can contribute to increased inflammation of the rotator cuff musculature leading to tendonitis.

How can I prevent injury?

Proper warm-up, including flexibility and stretching, is key to ensuring the muscles involved in throwing are loose enough to perform. Also, proper warm-up is crucial to insure that there is enough blood flow to the muscle to allow for lengthening and contracting through the many ranges the joints will go through during different throwing phases. Weakness of the muscles that support the shoulder decrease the ability of those muscles to stabilize the shoulder during throwing, allowing for compensatory motions to occur. When compensation occurs, injury is likely to follow. Strength should be a key part of a preventative program for all throwing athletes.

Pitching Guidelines:

After seeing an enormous rise in baseball related injuries for pitchers, The ASMI (American Sports Medicine Institute) and the USA Baseball Medical and Safety Advisory Committee have put together a list of rules and regulations regarding pitch count to help protect young athletes from injury. The following table is the pitch count regulations for all levels of Little League Baseball, for the regular season.

Age	Pitch Count
17-18	105 pitches per day
13-16	95 pitches per day
11-12	85 pitches per day
9-10	75 pitches per day
7-8	50 pitches per day

*Table courtesy of www.littleleague.org

With the rise of young athletes playing softball and baseball year round, the risk of overuse injuries increases. Rest, proper warm-up, adequate flexibility and strength throughout the shoulder and elbow musculature is the best way to prevent injuries from occurring and to keep the young athlete out on the field year round.