



Injury Prevention for the Overhead Athlete: Baseball and Softball

The repetitive nature of throwing in baseball and softball predisposes these athletes to various shoulder and elbow injuries. It is imperative that a clear line of communication is established between the player and coach to avoid injuries. Upon the onset of symptoms, the athlete should inform the parents and/or coach and then assessed by the athletic trainer and/or physician to discuss proper evaluation and treatment.

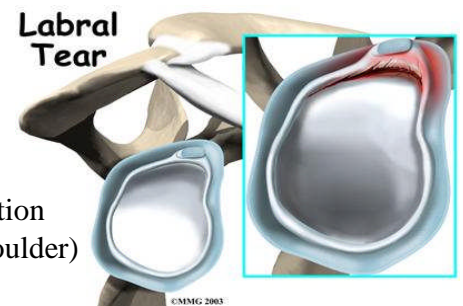
Common Injuries:

Shoulder

- Rotator cuff tendonitis
- Impingement
- Shoulder bursitis
- Torn labrum
- Shoulder multi-directional instability/subluxation / dislocation
- Little league shoulder (injury to the growth plate of the shoulder)

Elbow

- Ulnar Collateral Ligament (UCL) sprain
- Forearm Tendonitis
- Little League Elbow (Medial Epicondylitis)
- Lateral Compression Syndrome



Pathology and Risk Factors

Shoulder & Elbow

- Tight posterior-inferior capsule
- Posterior weakness and Anterior tightness
- Improper throwing mechanics
 - Dropping the elbow during late cocking and acceleration phase
 - Shortened stride length
 - Throwing across the body
- Throwing breaking-ball pitch before bones are mature
- Poor core stability
- Inadequate use of lower extremity muscles while throwing

Shoulder Injury Prevention

The shoulder complex is well suited to accommodate a great deal of range of motion. It is essential that a balance between strength and stability be considered when implementing a throwers exercise program. Please see exercises below.

- Scapular stabilizer strengthening
- Rotator cuff strengthening
- Shoulder flexibility
 - Posterior capsule “Sleeper” Stretch

- Stretching of Pectoralis major/minor, latissimus dorsi, and rotator cuff
- A structured year round throwing and conditioning program which encompasses strength periodization, plyometric training, flexibility, and cardiovascular exercise
- Strengthen the anterior shoulder, biceps, and flexor muscles of the throwing arm while emphasizing eccentric strength of the poster shoulder and triceps (Softball)

Elbow Injury Prevention

- Proper strengthening and stretching of the shoulder can reduce injuries to the elbow
- Forearm/wrist stretching and strengthening (concentric and eccentric exercises)
 - flexion/extension
 - pronation /supination
 - ulnar /radial deviation
- Recognition and modification of altered or poor mechanics
- No breaking pitches prior until bone matures completely
- Limit pitch counts and games pitched as per the Little league baseball guideline

Maximum Pitches per Game	
10 and under	75 pitches
11-12	85 pitches per day
13-16	95 pitches per day
17-18	105 pitches per day

Rest Requirements for Pitchers (16 and under)	
61 or more pitches in a day	Three (3) calendar days
41-60 pitches in a day	Two (2) calendar days of rest
21-40 pitches in day	One (1) calendar days of rest
1-20 pitches in day	No (0) calendar days of rest

Rest Requirement for Pitchers (17-18)	
76 or more pitches in a day	Three (3) calendar days of rest
51-75 pitches in a day	Two (2) calendar days of rest
26-50 pitches in a day	One (1) calendar days of rest
1-25 pitches in a day	No (0) calendar days of rest

References:

- <http://www.littleleague.org>
<http://patientsites.com> (Torn Labrum Image)

FOR MORE INFORMATION PLEASE CONTACT TOWSON SPORTS MEDICINE AT 410-337-8847 OR VISIT US AT WWW.TOWSONORTHO.COM

Click on the icon below for exercises.



