BASEBALL INJURIES

Baseball is a complex sport demanding an athlete to be physically well rounded by maintaining flexibility, balance, agility, endurance, speed, and strength standards appropriate for their level of play. Regardless of position, baseball players should have their technique and baseline strength assessed by a sports medicine professional with a background in throwing motion assessment in order to address specific concerns before the demands of the season begin.

Injury prevention for youth baseball often focuses on arm care due to the high incidence of throwing arm injuries in youth pitchers. It is important, however to educate and monitor players at all positions regarding safe play habits, proper technique, and warning signs of injury. Once an injury to any area of the body has occurred, careful return to play strategies monitored by a sports medicine professional should be observed. This is of particular concern for pitchers whose mechanics can be hindered significantly by injury to another body area (e.g., ankle injury).

**Injury Prevention Tips**

**Base Running and Sliding**
- Do not teach sliding for children under 10.
- Avoid collisions by discussing safe play habits for runners and fielders.
- When initially learning to slide, players should slide without a base and progress to breakaway bases, if available, until the sliding technique is mastered.
Injury Prevention Tips

Arm Care

- Engage in a preseason throwing program addressing technique, flexibility, balance, and strength.
- Treat players individually. Every child develops at different rates so it is important to build up to maximums rather than using the maximum as a starting point.
- Warm up at least 10 minutes. Start with jogging, dynamic movements, and stretching. Take short toss at low velocity before working up to longer distance at higher speeds appropriate for the position played.
- Follow a post-throwing routine comprised of stretching tight areas followed by icing the elbow and shoulder for 20 minutes to reduce soreness and inflammation.
- Listen to your body. Do not play through shoulder or elbow pain. Athletes may observe decreased velocity or accuracy as an early sign of arm fatigue and an indication to stop throwing for the day.
- Coaches should monitor pitch counts and signs of fatigue.
- Avoid playing for multiple teams at the same time if playing pitcher or catcher. Discuss and follow limits with each coach when playing for multiple teams.
- Take active rest of at least 3 months each year. Players can participate in physical activity or other sports but should not perform throwing drills or overhead activities (e.g., javelin throwing, quarterback, tennis).
- Learn and follow current recommendations for maximum pitches, appropriate pitches by age, frequency of play, and position rotations. Following these recommendations may reduce the incidence of overuse injuries by 50%.

Maximum Pitch Count Recommendations

<table>
<thead>
<tr>
<th>Age</th>
<th>Pitches/Game</th>
</tr>
</thead>
<tbody>
<tr>
<td>7–8</td>
<td>50</td>
</tr>
<tr>
<td>9–10</td>
<td>75</td>
</tr>
<tr>
<td>11–12</td>
<td>85</td>
</tr>
<tr>
<td>13–16</td>
<td>95</td>
</tr>
</tbody>
</table>

Weekly Rest Recommendations

<table>
<thead>
<tr>
<th>Ages 7–14 # of Pitches</th>
<th>Ages 15–18 # of Pitches</th>
<th>Required Rest</th>
</tr>
</thead>
<tbody>
<tr>
<td>66+</td>
<td>76+</td>
<td>4 calendar days</td>
</tr>
<tr>
<td>51–65</td>
<td>61–75</td>
<td>3 calendar days</td>
</tr>
<tr>
<td>36–50</td>
<td>46–60</td>
<td>2 calendar days</td>
</tr>
<tr>
<td>21–35</td>
<td>31–45</td>
<td>1 calendar day</td>
</tr>
<tr>
<td>1–20</td>
<td>1–30</td>
<td>None</td>
</tr>
</tbody>
</table>

Source: littleleague.org/learn/rules/pitch-count (American Sports Medicine Institute)
Common Baseball Injuries

Acute injuries are the result of a single traumatic episode and commonly occur when being struck by a ball or sliding into base. Protect contusions (bruises) from additional impact while healing by wearing a guard or padding. For sprains of the hand, wrist, shoulder, ankle, or foot, treat with ice and range of motion exercises. The athlete should be evaluated by a medical doctor, if signs of fracture are present such as deformity, loss of sensation, or significant swelling or pain.

Chronic and overuse injuries are characterized by repetitive stress to a muscle, tendon, ligament, cartilage, or bone. Symptoms of injury include pain during activity, ache during rest, stiffness, swelling, discoloration, loss of motion or strength, favoring the sore area, or loss of velocity or control. Injuries may occur to any part of the body; however, the most common injuries may occur in the shoulder and elbow considering the overhead nature of the sport. Common shoulder and elbow problems include proximal humeral epiphysiolyis (i.e., youth throwing shoulder syndrome), rotator cuff injury, labral injury, internal impingement, scapular dyskinesis, glenoid and capitellar osteochondritis dissecans, medial epicondyle injuries, ulnar collateral ligament injuries, elbow posteromedial impingement, elbow tendinitis, and ulnar neuritis. Consult a sports medicine doctor specializing in care of injuries in youth baseball players for evaluation and consideration of treatment options.

Seek Appropriate Care

Many injuries can be treated with active rest from sports participation until primary symptoms subside. Active rest should include activities to address flexibility, strength, balance, and form in order for successful reentry into sport. When applying ice to an injured area to decrease pain or swelling, use crushed ice in a bag for 20 minutes as often as every 2 hours.

If symptoms persist, and for any injury involving pain, swelling, dysfunction, loss of sensation, uncontrolled bleeding, or concussion related symptoms, visit a trained sports medicine professional for evaluation, care, and return to play guidance.

Expert Consultants

Daryl C. Osbahr, MD
Harrison Youmans, MD, CAQSM
James R. Andrews, MD
Glenn S. Fleisig, PhD
Therasa Quackenbush, MS, LAT, ATC

Resources

Please see USA Baseball Amateur Resource Center to learn more about common baseball related injuries [http://web.usabaseball.com/arc/health-and-safety/basic-armcare/injuries/](http://web.usabaseball.com/arc/health-and-safety/basic-armcare/injuries/)

[littleleague.org](http://littleleague.org)

[m.mlb.com/pitchsmart](http://m.mlb.com/pitchsmart)