



Baseball Injuries

More than 30 million children and teenagers participate in organized sports today. About 288,000 of those are injured each year playing baseball. Changes in recent trends tend to drive young athletes to focus on one sport, playing year round, and participating on multiple teams. Without taking time off or changing sports during the year, an athlete is more likely to develop an overuse injury. If not properly managed, this can lead to more serious problems.

Common Injuries

Baseball players most often injure their shoulders or elbows. Shoulder-related injuries range from tendonitis of the muscles that keep the joint stable (the rotator cuff) to cartilage tears within the joint itself. Elbow problems include tendonitis of the muscles on top of or below the forearm and strains of the ligaments on the inside of the elbow.

It is important for the athlete to talk with parents and coaches instead of playing through any pain. Pain may be due to an underlying condition and continuing to play could result in an injury. If pain persists or a young athlete is playing year round without much rest, a consultation with a sports medicine specialist is recommended.

Causes of Injury

- overtraining
- not enough rest periods
- poor throwing mechanics
- poor specific pitch technique
- poor flexibility and range of motion
- decreased rotator cuff or scapular (shoulder) strength
- decreased wrist muscle strength and flexibility
- decreased hamstring flexibility and strength
- poor hip flexibility
- poor core strength and stability
- decreased hip muscle strength

Treating Overuse Injuries

Overuse injuries usually respond to rest and a temporary halt to playing. Pain and swelling can be reduced by icing the area, doing gentle stretching, and using ibuprofen (e.g., Advil, Motrin, etc.).

If an athlete has pain in a joint that persists, seek medical attention. In as little as 48 hours weakness and imbalances can occur, leading to increased risk factors when the athlete returns to play. The specialized team of experts from UPMC Sports Medicine's Young Athlete Program can evaluate and, if necessary, treat an injury to prevent more serious problems.

After a period of rest, an athlete often needs physical therapy or rehabilitation to regain strength and flexibility in the affected area. UPMC Sports Medicine can design a baseball-specific progressive throwing, targeted strengthening, and range of motion program to help the athlete return from injury, or improve form.

If surgery is needed, an athlete usually completes a rehabilitation program afterward and can return to the sport with medical clearance.

Preventing Injury

To prevent injuries, an athlete should warm up properly before throwing and take part in preseason and in-season strengthening and conditioning programs. Any athlete who has pain or soreness that lasts for more than 48 hours should be evaluated by a medical professional.

In addition, he/she should avoid year-round playing to give the body a chance to rest and recover. Playing different sports helps ensure that the same muscles aren't used all the time.

Little League Baseball offers age-based guidelines (see charts below) for the number of pitches per day and the length of rest periods. These are designed to ensure safety and help avoid overuse injuries in young baseball players.

Little League Baseball Recommendations

League Age	Maximum Number of Pitches per Day
7-8	50
9-10	75
11-12	85
13-16	95
17-18	105

Pitch Count

Age	Pitch Count per Day	Rest Period
16 and under	1-20	0 calendar days
	21-40	1 calendar day
	41-60	2 calendar days plus 1 game
	61 and greater	3 calendar days plus 1 game
17 and older	1-25	0 calendar days
	26-50	1 calendar day
	51-75	2 calendar days plus 1 game
	76 and greater	3 calendar days plus 1 game

Mandatory Rest Periods

Type of Pitch	Age
Fastball	8±2
Change-up	10±3
Curve ball	14±2
Knuckle ball	15±3
Slider	16±2
Fork ball	16±2
Screw ball	17±2

Pitch Type Introduction by Age

What is the Young Athlete Program?

UPMC Sports Medicine's Young Athlete Program brings together a network of specialists that provides individualized attention for injury prevention and management.

Our physicians and physical therapists use cutting-edge, science-based techniques to help speed recovery, and quickly and safely prepare the athlete to return to the field of play. Athletic trainers, sports performance coaches, and other experts focus on injury prevention, nutrition, conditioning, and activity-specific training.

Regardless of age or sport, the Young Athlete Program has the expertise, technology, and services to make a difference for your athlete. For more information or to make an appointment, call **412-432-3700** or visit UPMC.com/SportsMedicine.

Our partner, Centers for Rehab Services, offers your young athlete physical therapy services at more than 40 convenient locations. To find an office near you, or to make an appointment, call **412-432-3700**.