

## Young Athlete Program: Baseball Injuries

UPMC Sports Medicine's Young Athlete Program brings together a team of sports medicine experts that provide individualized attention for injury prevention and management for young athletes.

The goal of the Young Athlete Program is not only to treat athletes when injuries occur, but to focus on prevention and performance training to help them reach their full potential.

Our team of experts use cutting-edge, science-based techniques to help speed recovery, and quickly and safely prepare the athlete to return to competition. Physical therapists, physicians, athletic trainers, sports performance coaches, and other experts focus on prevention, nutrition, conditioning, and sport-specific training, tailored to an athlete's age and level of competition.

### Common Baseball Injuries

More than 30 million children and teenagers participate in organized sports today. About 288,000 of those are injured each year play baseball. Changes in recent trends tend to drive young athletes to focus on one sport, playing year round, and participate 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.

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 Baseball Injuries

- 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. Weakness and imbalances can occur in as little as 48 hours, 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 Baseball Injuries**

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.

Below are aged based guidelines for youth baseball players for the number of pitches per day and the length of the rest periods. The guidelines are designed to ensure safety and help avoid overuse injuries in young baseball players.

**Youth Baseball Recommendations**

Recommended Pitch Count	
Age	Maximum Number of Pitches
7-8	50
9-10	75
11-12	85
13-16	95
17-18	105

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

Pitch Type Introduction by Age	
Type of Pitch	Age
Fastball	8-10
Change-up	10-13
Curve ball	14-16
Knuckle ball	15-18
Slider	16-18
Fork ball	16-18
Screw ball	17-19

**Screening Young Athletes**

Our team of sports rehabilitation experts provide injury prevention screenings to young athletes. These screenings can help uncover existing injuries and areas of weakness, and can help prolong participation in sports.




These 45-minute screenings include:

- Flexibility
- Strength
- Functional movement assessment

The results of the screening will help determine if a young athlete needs to consult with a physician, participate in physical therapy, or consider sport-specific performance training. UPMC Sports Medicine has the expertise and comprehensive services to support young athletes.

**Contact the Young Athlete Program**

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 **1-855-93-SPORT (77678)** or visit **UPMCSportsMedicine.com**.

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