



Common baseball injuries

Shoulders and elbows

The most common baseball injuries in young athletes stem from overuse, and are often preventable. Injuries to the shoulder and elbow are two frequent examples; these are usually caused by throwing too much and from improper throwing technique. Pitchers, catchers and players who throw overhand are particularly susceptible to overuse injuries of the shoulder and elbow.

If your child, teen or young adult is feeling pain—or has swelling or lack of range of motion in the shoulder or elbow—he should see a doctor for an X-ray. Shoulder and elbow injuries don't usually end a player's career, but depending on their severity, injuries like these could end his season. Treatment rarely requires surgery, but it can require weeks or months of rest, physical therapy and home exercises, with a very careful and gradual return to throwing.



Player Safety

Common accidents, serious injuries

Two defensive players can collide attempting to catch a ball—many serious injuries occur this way.



The defensive player might get hurt if the base runner slides into him.

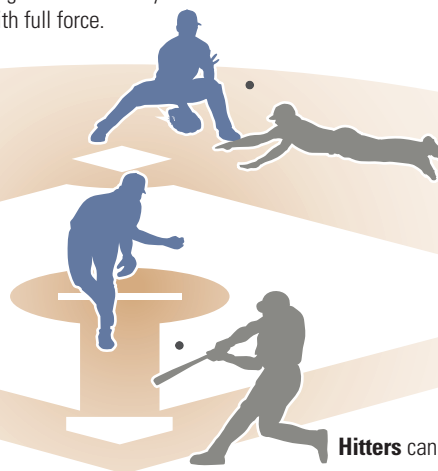
The base runner may get hurt by sliding into the base head-first or by slamming into a stationary base with full force.



Fielders can be injured by batted balls (e.g., pitchers can't react in time to field a line drive, a ball takes a bad hop and strikes a fielder in the face, etc.)



More acute injuries usually happen during base running or contact with the ball.



Hitters can be injured by pitched baseballs.

Preventing baseball injuries

How can you prevent baseball injuries?

Environmental safety

- Make sure that the field of play is as safe as possible. Players should wear proper safety equipment at all times, and a helmet while batting or catching. Sliding into a stationary base can hurt base runners, so using breakaway bases that move when the runner hits them decreases the risk of injury.
- Proper coaching concerning player communication to minimize collisions in the field
- Adhering to new guidelines about using composite bats and other safety equipment

Conditioning and flexibility

- Proper warm-ups and stretching can help reduce soreness in the muscles and joints, while strengthening the areas around the shoulder and elbow.
- For shoulders, the “sleeper stretch” helps to maintain motion and prevent ligament or tendon problems. It should be done regularly, rather than in response to pain.
- For elbows, injury prevention starts with stretching and strengthening the biceps, triceps and muscles inside of the forearm.
- Cross training in multiple sports diversifies muscle strength and gives overused muscles a break.

Proper throwing mechanics

Things to keep in mind while throwing include:

- Appropriate pelvic tilt in early windup
- Keeping the hand strong and on top of the ball
- Having the elbow high at the time the forward foot hits the ground
- Ensuring the stride foot goes toward the target, rather than off to the side
- No (or limited) curveballs or sliders until the recommended age—generally, 14 years old for a curveball and 15 to 16 years old for a slider.



Pitch counts

To prevent overuse injuries in pitchers, USA Baseball and Little League Baseball have come up with a pitch count system to limit the number of pitches a player throws.

9–10 year olds

50 pitches per game
75 pitches per week
1,000 pitches per season
2,000 pitches per year

11–12 year olds

75 pitches per game
100 pitches per week
1,000 pitches per season
3,000 pitches per year

13–14 year olds

75 pitches per game
125 pitches per week
1,000 pitches per season
3,000 pitches per year

Rest time

To ensure proper time for rest and recovery, follow these guidelines:

7–16 year olds

Pitches in a day	Rest time
61 or more	4 days
41–60	3 days
21–40	2 days
1–20	1 day

17–18 year olds

Pitches in a day	Rest time
76 or more	4 days
51–75	3 days
26–50	2 days
1–25	1 day

What Causes Overuse Injuries?

Multiple leagues per season

When an athlete plays in multiple baseball leagues in the same season, it's hard to monitor pitch counts and throws during practice time.

Playing baseball year round

Young athletes should be playing only eight months of the year, and should be resting their throwing arm otherwise.

Lack of cross training

Serious athletes can sometimes focus so much on one sport that they don't properly cross train.

Pitch type

There's been a lot of talk about which pitches could be harmful to the arms of young athletes. Experts at Boston Children's Sports Medicine Program suggest focusing less on what kind of pitches a player throws, and more on the intensity and frequency with which he's throwing them.

Fine line between soreness and pain

If the athlete is sore after pitching a game, he should rest—and not throw again until the soreness has gone down.

No guidelines for other positions

Infielders and outfielders don't have throwing counts or guidelines, so they should personally monitor their pain and see a doctor if it gets worse.



Reviewed by Donald S. Bae, MD, orthopedic surgeon, Boston Children's Hospital

This piece is part of an informational series on sports injury prevention produced by the Orthopedic Center/Sports Medicine Division at Boston Children's Hospital. For materials on preventing injuries in other sports, call 617-355-3501 or visit bostonchildrens.org/sportsmed.



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