

## Injuries and Prevention Strategies of Youth Baseball Athletes

Every year 5 million youth athletes, 6-17 years of age, participate in the sport of baseball in the United States.

Due to the large number of participants, frequent injuries associated with throwing/pitching continue to occur.

The single most important risk factor associated with the development of injury related to throwing/pitching is arm fatigue and pain/soreness.

This brochure provides valuable resources aimed at preventing injury and resources to improve sport performance.



Pitcher Nick Pratto throws for the West team from Huntington Beach, California, in the 2011 Little League Baseball World Series. (2012, August 25). Retrieved April 10, 2016, from <http://www.cnn.com/2012/08/25/health/little-league-curveballs/> (Originally photographed 2011)



Shoulder pain. (2013, March 28). Retrieved April 10, 2016, from <http://sparkphysio.blogspot.com/2013/03/tightening-up-throwers-coil-rehab-fine.html>

## The Thrower's Shoulder

Repetitive stress and microtrauma associated with throwing/pitching can lead to the development of injury to the shoulder joint, which may hinder performance and in extreme cases require surgical intervention in order to fix underlying pathology.

Throwing injuries are often experienced during pitching, which can generate extreme amounts of force on the shoulder.

In order to prevent injury, proper strengthening and stretching should be the primary focus of pre-season, regular season, and offseason conditioning.

## The Thrower's Elbow

The elbow joint is also commonly associated with injury related to pitching/throwing.

One such injury, which can be disabling and even career ending is Tommy John's. This injury affects the ulnar collateral ligament of the elbow and often requires surgery as well as rigorous rehabilitation in order to regain strength and endurance required by the sport of baseball.

Although treatable, these injuries often begin at a younger age, and are related to increased physical demands of year round and travel baseball, which sometimes require pitchers to perform in consecutive games and innings throughout a season.



Gault, A. (2013, August 16). *Throwers elbow can lead to severe stress on the elbow joint* [Photograph found in Digital Vision: Getty Images]. Retrieved April 10, 2016, from <http://www.livestrong.com/article/404654-stretches-for-throwers-elbow/>

# Resources For Athletes



USA Baseball. (2012, June 19). Retrieved April 10, 2016, from <http://web.usabaseball.com/index.jsp>

In order to increase awareness, as well as limit the exposure of youth athletes to injuries related to baseball, USA Baseball in partnership with the MLB have produced several throwing guidelines and recommendations that serve to protect adolescent athletes from high risk pitching tendencies.

These guidelines provide a valuable resource “to help young players reduce arm injuries by providing a comprehensive resource for safe pitching practices” ~ USA Baseball

## Pitch Smart

Pitch Count Limits And Rest Recommendations

Age	Daily Pitch Max
7-8	50
9-10	75
11-12	85
13-14	95
15-16	95

Number of Pitches	Rest Recommendations
1-20	0-1 Days Rest
21-35	1-2 Days Rest
36-50	2-3 Days Rest
51-65	3-4 Days Rest
66+	4 Days Rest

## Risk Factors Associated with Injury

- Pitching while fatigued
- Throwing too many innings over the course of a year
- Not taking enough time off from baseball every year
- Pitching on consecutive days
- Playing for multiple teams at the same time
- Throwing curveballs and sliders or other skilled pitches at too young of an age
- Not following proper strength and conditioning routines prior to play

For More Information

<http://m.mlb.com/pitchsmart/pitching-guidelines>

~ USA Baseball

## USA Baseball recommendations on innings pitched and rest requirements

Age	Recommendations
8 and under	-Do not exceed more than 60 innings pitched within a 12 month period  - Avoid throwing pitches other than fastballs and changeups  - Avoid playing for multiple teams throughout the course of a season
9-12	- Do not exceed 80 combined innings pitched within a 12 month period  - avoid throwing pitches other than fastballs and change-ups
13-18	- Do not exceed 100 combined innings during a 12 month period - Players can begin to develop off-speed pitches once fastballs and change-ups are developed and consistent

Please Give Feedback At:

<https://www.surveymonkey.com/r/LCBC799>