# **Guidelines for Little League Baseball Players to Improve Performance, Injury Prevention, and Improve Throwing Velocity**

I understand that, prior to beginning any player health and performance program I may need approval from my physician. I represent that I am in good physical condition and do not suffer from any health conditions that would limit or prevent my participation in these programs.

I understand that my participation in these programs are voluntary and I hereby consent to participate in these programs. I acknowledge and agree that my participation in the player health and performance program and the use of any equipment while doing so may involve risk of personal injury. I assume full responsibility for all risks related to my participation. In consideration for my participation in the Scottsdale Little League player health and performance program, I agree to hold Shane Sullivan and Scottsdale Little League (SLL), its parent, subsidiaries and affiliated corporations, and its/their respective past, present, and future directors, officers, employees and agents of Scottsdale Little League harmless from all liability and claims arising out of or in connection with my participation in the SLL player health and wellness program. I hereby release and discharge Shane Sullivan and Scottsdale Little League from all liability arising out of or in connection with the player health and wellness program. I understand that I am solely responsible for any loss or injury suffered by me or my property resulting from my participation in the SLL player health and wellness program

#### Overuse injuries in baseball

Some of the most common baseball injuries are overuse injuries. Overuse Injuries develop over time, often when players make too many pitches or overhead throws without giving their bodies a chance to recover. This occurs because baseball has transitioned from a spring and summer sport to a year-round sport. Kids are participating in spring, summer and fall seasons with weekend long tournaments and showcases. One sport specialization provides little time off and can cause kids to miss out on the benefits of developing different fundamental movement patterns to become well rounded athletes. The following are a list of common overuse injuries:

- **Little League Shoulder** is an overuse injury caused by stress to the upper arm bone (humerus) nearest to the shoulder. Increases in stress can cause widening of the growth plate, resulting in inflammation and pain. If left untreated, further bone damage can develop such as a stress fracture. The good news is that little league shoulder will heal with several weeks of rest and a committed rehabilitation program.
- Rotator Cuff Injuries the rotator cuff is a group of 4 muscles (supraspinatus, infraspinatus, teres minor and subscapularis) which together allow you to raise and rotate your arm. These muscles are an integral part of the throwing motion and repeated stress can lead to overuse tendonitis, impingement or even tears if left untreated.
- **Little League Elbow** is an overuse injury caused by stress to the medial (inner) aspect of the elbow. Increases in stress can cause widening of the growth plate, resulting in inflammation, pain or a loss of range of motion. Little league elbow will heal with several weeks of rest and a committed rehabilitation program.
- Ulnar Collateral Ligament Injury is a small ligament on the inner aspect of your elbow that provides stability during the throwing motion. Injury to the UCL has gained

significant attention with the famous "Tommy John Surgery" over the last several years. Players between the ages of 15 and 19 account for nearly 57% of all Tommy John surgeries and increasing by an average of 6% per year, according to a 2015 study in the American Journal of Sports Medicine.

Am J Sports Med 2015 Jul;43(7):1770-4. Trends in Medial Ulnar Collateral Ligament Reconstruction in the United States: A Retrospective Review of a Large Private-Payer Database From 2007 to 2011 <u>Brandon J Erickson</u>-, <u>Benedict U Nwachukwu</u>, <u>Sam Rosas</u>-, <u>William W Schairer</u>, <u>Frank M McCormick</u>, <u>Bernard R Bach Jr</u>, <u>Charles A Bush-Joseph</u>, <u>Anthony A Romeo</u>

### **Injury Prevention**

To decrease the incidence of these injuries, researchers recommend following safe pitching guidelines. The guidelines include:

- Pitch Count
- Rest
- Pitching Types

MLB. Major League Baseball. Pitch Smart. Published 2014. Accessed October 6, 2019. <a href="https://www.mlb.com/pitchsmart/pitching-guidelines">https://www.mlb.com/pitchsmart/pitching-guidelines</a>

#### Pitch count

Pitch count refers to the number of maximum effort pitches thrown. All maximum effort pitches count toward the total number for the week, regardless if they were thrown in a game, in a practice or in your backyard.

Age	Pitches Allowed Per Day
7 - 8	50
9 - 10	75
11 - 12	85
13 - 16	95
17 - 18	105

Age	Daily Max (Pitches in Game)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest
7-8	50	1-20	21-35	36-50	N/A	N/A
9-10	75	1-20	21-35	36-50	51-65	66+
11-12	85	1-20	21-35	36-50	51-65	66+
13-14	95	1-20	21-35	36-50	51-65	66+
15-16	95	1-30	31-45	46-60	61-75	76+

#### Rest

A certain amount of repetition is required to develop the strength and skills needed to be a successful pitcher. However, adequate rest is as important as repetition. If rest is insufficient, skill development suffers and the risk for injury increases. A pitcher's body muscles, tendons and bone growth centers need sufficient time to cool down and re-charge for the next event.

## Advised rest for pitchers 14 years and younger

Pitches in a Day	Rest Period
66+	4 days
51-64	3 days
36-50	2 days
21-35	1 day
1-20	0 days

# Advised rest for pitchers 15-18 years old

Pitches in a Day	Rest Period
76+	4 days
51-75	3 days
26-50	2 days
1-25	1 day

## **Pitching Types**

There is evidence to show that throwing breaking pitches before skeletal maturity may increase the risk for elbow and shoulder pain due to the excessive stress these pitch types place on bone growth centers. The <u>USA Baseball Medical and Safety Advisory Committee</u> makes the following recommendations for the earliest age at which pitchers should begin throwing each pitch type.

Pitch Type	Minimum Age
Fastball	8
Change-up	10
Curveball	14
Knuckleball	15
Slider	16
Screwball	17

https://www.littleleague.org/downloads/learning-curve-unc-arm-safety-study/

#### **Age Specific Guidelines**

#### **Ages 8 and Under**

- Focus on athleticism, physical fitness, and fun
- Focus on learning baseball rules, general techniques, and teamwork
- Do not exceed 60 combined innings pitched in any 12 month period
- Take at least 4 months off from throwing every year, with at least 2-3 of those months being continuous
- Make sure to properly warm up before pitching
- Set and follow pitch-count limits and required rest periods
- Avoid throwing pitches other than fastballs and change-ups
- Avoid playing for multiple teams at the same time
- Avoid playing catcher while not pitching
- Players should not pitch in multiple games on the same day
- Play other sports during the course of the year
- Monitor for other signs of fatigue
- Pitchers once removed from the mound may not return as pitchers
- No pitcher shall appear in a game as a pitcher for three consecutive days, regardless of pitch counts

Age	Daily Max (Pitches in Game)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest
7-8	50	1-20	21-35	36-50	N/A	N/A

#### Ages 9-12

- Focus on athleticism, physical fitness, and fun
- Focus on learning baseball rules, general techniques, and teamwork
- Do not exceed 80 combined innings pitched in any 12 month period
- Take at least 4 months off from throwing every year, with at least 2-3 of those months being continuous
- Make sure to properly warm up before pitching
- Set and follow pitch-count limits and required rest periods
- Avoid throwing pitches other than fastballs and change-ups
- Avoid playing for multiple teams at the same time
- Avoid playing catcher while not pitching
- Players should not pitch in multiple games on the same day
- Play other sports during the course of the year
- Monitor for other signs of fatigue
- Pitchers once removed from the mound may not return as pitchers
- No pitcher shall appear in a game as a pitcher for three consecutive days, regardless of pitch counts

Age	Daily Max (Pitches in Game)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest
9-10	75	1-20	21-35	36-50	51-65	66+
11-12	85	1-20	21-35	36-50	51-65	66+

#### Ages 13-14

- Players can begin using breaking pitches after developing consistent fastball and changeup
- Do not exceed 100 combined innings pitched in any 12 month period
- Take at least 4 months off from throwing every year, with at least 2-3 of those months being continuous
- Make sure to properly warm up before pitching
- Set and follow pitch-count limits and required rest periods
- Avoid playing for multiple teams at the same time
- Avoid playing catcher while not pitching
- Players should not pitch in multiple games on the same day
- Play other sports during the course of the year
- Monitor for other signs of fatigue
- A pitcher remaining in the game, but moving to a different position, can return as a pitcher anytime in the remainder of the game, but only once per game
- No pitcher shall appear in a game as a pitcher for three consecutive days, regardless of pitch counts

Age	Daily Max (Pitches in Game)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest
13-14	95	1-20	21-35	36-50	51-65	66+

#### Ages 15-18

- Players can begin using breaking pitches after developing consistent fastball and changeup
- Do not exceed 100 combined innings pitched in any 12 month period
- Take at least 4 months off from competitive pitching every year, including at least 2-3 continuous months off from all overhead throwing
- Make sure to properly warm up before pitching
- Set and follow pitch-count limits and required rest periods
- Avoid playing for multiple teams at the same time
- Avoid playing catcher while not pitching
- Players should not pitch in multiple games on the same day
- Make sure to follow guidelines across leagues, tournaments and showcases
- Monitor for other signs of fatigue
- A pitcher remaining in the game, but moving to a different position, can return as a pitcher anytime in the remainder of the game, but only once per game
- No pitcher shall appear in a game as a pitcher for three consecutive days, regardless of pitch counts

Age	Daily Max (Pitches in Game)	0 Days Rest	1 Days Rest	2 Days Rest	3 Days Rest	4 Days Rest
15-16	95	1-30	31-45	46-60	61-75	76+
17-18	105	1-30	31-45	46-60	61-80	81+