- The official scorekeeper uses a commercially-available computerized scoring program, rather than the traditional paper scorebook, which allows the user to easily track the number of pitches throughout the game.
- The assistant to the scorekeeper counts up the balls, strikes, foul balls with two strikes, and fair batted balls using a form designed for this purpose.
- The person doing the counting uses a hand-held counter specifically designed for counting pitches or counting laps. These are generally available at sporting goods outlets.
- The person doing the counting uses a standard "inventory counter" that is available in most office supply stores.

The bottom line is, whichever system works best in your league for counting pitches, is the system you should use. It might take some leagues a week or two to become accustomed to the new regulation, and some refinements in putting it into effect in your league may be necessary – just as they were in the leagues that used "pitch counts" over the past two years.

# Pitching Fundamentals

## By Nicholas Caringi

### Introduction

The purpose of this part of "Protecting Young Pitching Arms: The Little League Pitch Count Regulation Guide for Parents, Coaches and League Officials," is to provide some insight to players and coaches learning about pitching in a mechanically correct way.

From Little League to the professional ranks, pitching styles have always varied. Regardless of the style, there are definite fundamentals all pitchers must follow. By doing this, the chances of injury are lessened.

Most effective pitchers have three things in common; working fast, throwing strikes and changing speeds. To be effective a pitcher must learn to keep hitters off balance. After all, hitting requires good timing on the part of the batter. The pitcher's main task should be to disrupt the hitter's timing. As a result, this portion of "Protecting Young Pitching Arms: The Little League Pitch Count Regulation Guide for Parents, Coaches and League Officials," will teach the change-up, which gives the pitcher an added edge on the hitter.

Learning a skill like pitching is not easy for most players. In order to assist teaching this skill several drills are included that are specifically designed to improve and maintain proper pitching mechanics. Pitchers need to work on these drills every day. The drills do not require expensive equipment; just a baseball, glove, and a hard-working player.

With a positive frame of mind, the willingness to succeed, and the latest knowledge provided in "Protecting Young Pitching Arms: The Little League Pitch Count Regulation Guide for Parents, Coaches and League Officials," pitchers can succeed – safely – at any level of ball.

***Ready Position***

### The Starting Position

When a pitcher stands on the rubber to begin the delivery to the hitter, it is suggested that a right-handed pitcher stand on the right corner of the pitching rubber. Left-handed pitchers should stand on the left side of the rubber. Deception is an important part of pitching. By standing on the throwing-hand side of the rubber, the pitcher gains a deception advantage. The hitter is prevented from picking up the baseball during the delivery until it gets to the "window" – the spot over the pitcher's shoulder where the batter sees the release of the ball.

The pitcher should start in a relaxed stance with the shoulders square to the plate. Standing with both feet on the rubber, the pitcher's toes should be slightly in front of the pitching plate. Be sure that there is space between the pitcher's feet (a little closer than shoulder-width apart). The pitcher's weight should be on his/her pivot foot with the glove-side leg relaxed and slightly bent. This helps emphasize the weight transfer back when beginning the delivery.

The starting position of the hands can be held in any way that feels comfortable, such as: 1. In the throwing hand behind the back; 2. In the glove to the side, and; 3. In the glove resting against the waist or chest.

However, at the point of the delivery, the hands will be brought together in front of the chest and the hands will be together. If the pitcher holds the ball in the glove it is important that the pitcher holds the ball in the palm of

the glove for securing a grip. Be sure that the pitcher keeps the ball hidden from the batter and the opposing team's coaches' view to prevent them from picking up what pitch is going to be thrown.

## The Delivery

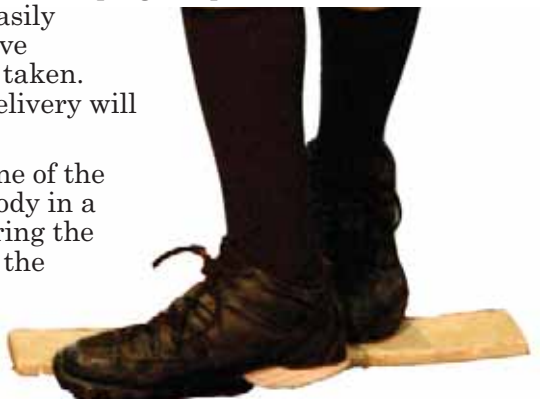
**Weight Transfer**: Regardless of the pitcher's position on the rubber, the next progression is to start the delivery. The pitcher will take a small step straight back with the left foot (right-handed pitcher), about five or six inches. The pitcher may want to step to the side instead of straight back. Either way is fine.

One important checkpoint is to make sure that the bill of the cap of the pitcher never leaves the plane of the rubber. This ensures that the pitcher will not pull the body back too far, causing a rushed delivery. The aim is to produce a smooth, tension-free delivery.

The best approach is to keep an unobstructed view of the target. Many pitchers like to take their hands back over their head when beginning the delivery, but some young pitchers may have trouble maintaining balance. Be keeping the pitcher's hands near the chest during the delivery, balance is more easily maintained. It is important for the pitcher to move the hands at the same time the small step back is taken. Otherwise the pitcher gets out of rhythm and the delivery will not be as smooth.

*Weight Transfer*

**The Pivot Foot:** Establishing the pivot foot is one of the most important elements in getting the pitcher's body in a correct position to throw accurately. After transferring the weight back, the next step in the progression is for the pitcher to square off the pivot foot and place it in front of the rubber. The outside portion of the pivot foot must remain in contact with the rubber, and the instep should be directly at the target. Placing the foot on top of the rubber does not allow for an effective push or drive to the plate.



*Pivot Foot*

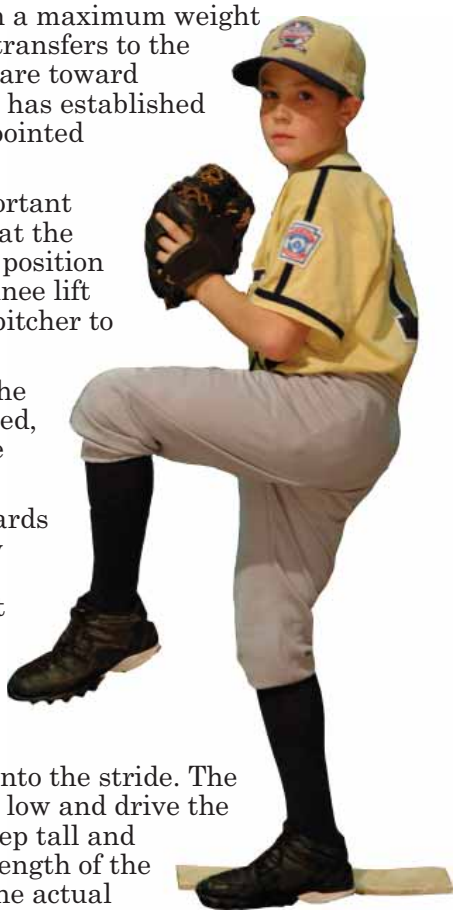
**The Leg Lift:** The leg lift enables the pitcher to obtain a maximum weight transfer towards the plate. As the pitcher's weight transfers to the pivot foot, his/her shoulders will automatically square toward third base (right-handed pitcher). Now the pitcher has established a pointer or a directional side with the glove side pointed towards the catcher.

The pitcher then begins the knee lift, with three important checkpoints. First, make sure the pitcher's thigh is at least parallel to the ground at the height of the lift, at a comfortable level. A good way to find a comfortable knee lift position is to have the pitcher freeze at the top of the lift. If the pitcher loses balance, the knee lift is too high. The pitcher must keep good posture. Arching the back may cause the pitcher to lose balance during the delivery.

Another checkpoint on the leg lift is to keep the lift foot somewhat underneath the knee. Kicking the foot out will cause the pitcher to lose balance. If the foot is relaxed, it will allow the pitcher to have a higher, more comfortable leg lift. Remember, the pitcher needs to achieve a tension-free delivery.

Finally, at the height of the leg lift, the knee should be turned back slightly towards the plane of the rubber. By bringing the knee back, this ensures that the hips stay closed and the pitcher's weight is completely on the back leg. By not keeping the hips closed, the pitcher cannot get maximum hip thrust when throwing the ball. It is important that the pitcher's head is over the back knee. If the pitcher tips his head toward the plate, it will cause a rushed delivery.

The hands, regardless of where the pitcher has them during the beginning of the delivery, must be at the chest or waist area at the height of the leg lift.



*Leg Lift*

**The Stride:** From the leg lift position, the pitcher should drive off the back leg into the stride. The extent of the drive is the pitchers preference. Some pitchers like to drop their hips low and drive the ball to the plate using their legs as a part of the throwing action. Others like to keep tall and in a sense "fall" towards the plate. This is a decision for the pitcher to make. The length of the stride may range anywhere from approximately 85 percent of the body height to the actual length of the entire body.


*Launch Position*

Good advice is to use the pitcher's physical attributes when making this decision. If the pitcher is tall, then the "tall and fall" method might be desired. If the pitcher is not tall then the "drop and drive" method might be desired. The only problem with the drop and drive method is that some pitchers have a tendency to drop and drag the elbow during the throwing motion. A low elbow at delivery of the pitch can lead to arm and shoulder injuries. The "tall and fall" method will not necessarily keep the elbow from dragging, but it makes it easier for the pitcher to stay on top of the ball.

What is important is that the pitcher gets a maximum stride that is comfortable. A maximum stride will allow the pitcher to release the ball closer to the plate, increasing velocity. Over-striding may result in the pitcher having trouble keeping pitches down in the strike zone.

As the lift knee moves forward into the stride, the pitcher should keep the knee flexible. This prevents the pitcher from kicking out the foot when pushing toward the plate. If the pitcher does kick the lift foot out when striding, the pitcher will normally arch the back in order to attempt to gain balance. Arching the back cuts down on the stride.

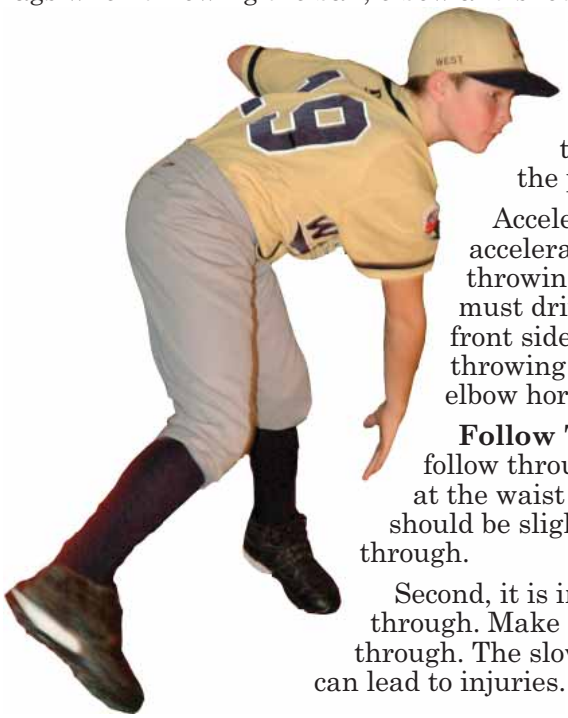
As the pitcher lands on the stride foot, make sure that the landing is on the ball of the foot with the toes pointing just slightly closed to the plate. Landing on the heel of the foot will cause a "jerk" or momentary stop in the delivery. This can create arm problems.

The foot must be in a direct line with the target when landing. If the foot lands away from this line, then the pitcher is forced to either throw across the body, or the follow-through will be affected by the loss of balance.

**Getting to the Launch Position:** As the pitcher lifts the leg and takes a comfortable stride, the hands must separate and reach what is called the launch position. The pitcher must concentrate on turning the thumbs in toward the body (down) and turning the palms away from the body when separating the ball from the glove. This action helps to get both the glove-side elbow and the throwing-arm elbow to shoulder height. When the hands break, be sure the pitcher separates the ball and glove inside of the lift knee. If the pitcher throws the hands outside the lift knee, the back may arch.

There are three checkpoints in the launch position. One is to be sure the glove-side elbow is at shoulder height when the pitcher is ready to deliver the ball. This will give the pitcher a better balance and will aid in keeping the throwing elbow from dragging.

The second checkpoint involves the throwing elbow at or slightly above shoulder height. If the elbow drops or drags when throwing the ball, elbow and shoulder problems are soon to follow.



*Follow Through*

Finally and most important, make sure the ball is facing away from the catcher toward second base. Keep the elbow slightly bent in an "L" shape. If the ball is not facing away, the elbow will have a tendency to drag below shoulder height as the ball is thrown. With the ball facing away in the correct position, as the hips are rotated to the plate the ball also will automatically be rotated toward the plate.

Acceleration of the Arm: From the launch position, the pitcher begins to accelerate the arm. At this point, the glove side is just as important as the throwing side. With the elbows at shoulder height in the launch, the pitcher must drive the glove side elbow down vertically past the hip. By "driving the front side down" the pitcher ensures that the throwing shoulder is up and the throwing elbow is at shoulder height. If the pitcher drives the glove hand or elbow horizontally, the throwing elbow may drag.

**Follow Through:** Pitchers must adhere to two absolutes for an effective follow through after delivering the pitch. First, be sure that the pitcher bends at the waist and is getting the head out over the stride knee. Also, the front knee should be slightly bent to cushion the weight transfer, and to aid in a smooth follow through.

Second, it is important that the pitcher is in a good fielding position after following through. Make sure that the pitcher does not stop the throwing arm during the follow through. The slowing action causes control problems and completely stopping the arm can lead to injuries.

## Pitch Variety

A Little League pitcher should concentrate on mastering two pitches, the fast ball and the change up. As players get older, they may elect to learn the breaking ball.

**Fast Ball – Four-Seam Grip:** The most commonly used grip for accuracy is the four-seam fast ball. The four-seam fast ball is held with the index and middle fingers positioned across the large seams. A finger's width should be the distance between the index and middle fingers with the thumb positioned underneath the ball on a seam. The pitcher should be sure there is a small space between the web of the hand and the ball. The third and fourth fingers are curled back.

*Four-seam Fastball*

**Fast Ball – Two-Seam Grip:** The two-seam fast ball is held with the index and middle fingers across the seams where the horseshoe-like seams almost meet. The thumb is placed on a seam at the bottom of the ball, while the third and fourth fingers are curled back. Using this grip provides a little extra movement on the fast ball. Again, the pitcher should be sure there is a small space between the web of the hand and the ball.

*Two-seam Fastball*

**Fast Ball – With-the-Seam Grip:** On this grip, the index and middle fingers should be placed on the seams where both horseshoe seams almost meet. The thumb is placed on a seam underneath the ball. The pitcher should be sure there is a small space between the web of the hand and the ball. The third and fourth fingers are curled back. When thrown, this pitch has a tendency to move a little which will make it more difficult to hit.

**Three-Finger Change Up:** The purpose of a change up is to give the appearance of a fastball, but because the speed of the ball is much slower, the hitter's timing is disrupted.

The three-finger change up can be gripped in any way the pitcher feels comfortable. Most pitchers grip the first and third fingers running the length of the seams with the middle finger in between the seams. The thumb is positioned underneath on a seam. Some pitchers grip the three-finger change up similar to a four seam fastball with slight modifications.

The most important aspect of the change up is that the ball, unlike all the fast ball grips, is tucked back against the pad of the hand. When throwing any change up, the key is to keep the same pitching mechanics and arm speed. The grip of the ball will slow the speed of the pitch.

*With-the-Seam Fastball*

## Drills

The following drills are designed to break down the pitching motion into progressions that can be isolated. They can be done from shorter throwing distances.

**Slow Motion Drill:** Standing on the rubber, or a simulated rubber, or simply line in the dirt or grass and without a ball, the pitcher begins the pitching progression as slow as he or she possibly can. This concentration drill allows the coach and the pitcher to look very closely at each progression of the motion and make corrections. The pitcher fakes a pitch and completes the progression with the follow through.

*Three-finger Change Up*

**Pivot Foot Drill:** The pivot foot drill begins with the pitcher's pivot foot or power foot placed against the rubber with the instep facing the target or the plate. The weight is on the stride foot. At this point the body should be in control and above the plane of the rubber. The pitcher transfers the weight to the pivot foot which then creates the directional side (meaning glove side pointing to the plate) and goes right through to the knee lift and finishes the progression. This drill reinforces the control over the rubber as well as the creation of the directional side.

**Knee Lift Drill:** Starting in the knee lift position, the pitcher simply holds a proper, comfortable knee lift for three to five seconds, and then completes the progression moving to the stride and launch positions. This drill reinforces the balance needed and controlled direction towards the plate.

**Launch Drill:** With the feet separated more than shoulder-width apart, and in a good launch position (both elbows at shoulder height, ball facing away and throwing arm in an "L shape), the pitcher should simply lift the

stride foot slightly, transfer weight from the pivot foot back to the stride foot, continue with the progression by driving the glove side elbow down and back past the hip, and throw the ball with a good follow through.

If needed, the coach can reinforce any position of the launch by simply holding or reinforcing the position. For instance, a pitcher may drag his elbow through the delivery, and the coach may correct it by holding the elbow at the correct height at the start of the launch.

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# Eight Essentials of Post-Pitching Recovery

## By Jim Ronai MS, PT, ATC, CSCS

The institution of the pitch count in Little League Baseball represents a positive step towards ensuring that the game of baseball is safer both in the present and future careers of young pitchers.

As an adjunct to this new pitch count regulation and in an attempt to protect the health and safety of youth baseball pitchers, the following post-performance suggestions are offered. Since most youth baseball pitchers are typically removed from the mound, but not necessarily from the game, these suggestions are intended for post-game or for a time when the pitcher is considered done for the day.

1. Children learn most effectively with a consistent routine. All athletes need to have a routine that they perform both pre- and post-game. The routine needs to be monitored and consistent. Athletes need to know that the routine needs to be completed correctly before they will be permitted to participate in subsequent game or practice play.
2. Perform a "cool down activity." Have pitchers jog for four to six minutes, to the point when they start to sweat. This increases general blood flow throughout the body and prepares the body for a post-performance flexibility routine. Increasing blood flow allows the body to circulate oxygenated blood to fatigued muscles. Oxygenated blood helps soft tissues recover and heal following activity.
3. Spend five minutes on a post-game, movement-based, "dynamic flexibility program." Incorporate movements for the forearms, shoulders as well as the torso and lower body. As an example, have athletes perform progressive arm circles forward and backward for their arm and shoulder muscles, and walking heel grabs for their thigh and hip flexor muscles. These drills represent only a portion of a post-outing routine that help the athlete stretch their entire body. Along with increasing the flow of oxygenated blood to muscles and tendons, stretching dynamically following an athletic performance helps to mediate the by-products of exercise that make the body stiff and sore.
4. Designate one staff member to review the pitcher's performance. Keep things simple and to the point. Review the negative aspects of the pitcher's performance, but be sure to finish the conversation by emphasizing the positive. Leave the athlete feeling good about his/her outing.
5. Since most young athletes answer questions about how they feel with a shrug or a one-word answer, develop a visual analog scale for the pitchers to use to quantify how they feel before, during, and after the game. The scale can be something as simple as a one-to-10 scale with a picture of a frown at No. 1, a neutral face at No. 5, and a happy face at No. 10. Ask the pitcher how he/she feels before the game, at the end of each inning, and at the end of the performance. The visual scale allows younger players to easily point to the number or picture that most describes how the arm is feeling. Coaches can use the scale to inquire about the condition of a pitcher's arm before the game as well as any symptoms that he/she develops during or at the conclusion of the game. Monitoring a young pitcher's perception of his/her physical wellness helps coaches make note of trends related to performance or potential injury related to volume, lack of endurance, or other variables.
6. Having a cooler of ice available in the dugout is an important part of optimizing a pitcher's recovery. Keep a few bags of ice available for pitchers to apply to their shoulders and elbows following a pitching outing. Never apply ice directly to the skin or for more than 12-15 minutes. Also be aware of the ulnar nerve found in the area of the "funny bone," and be sure not to apply ice directly over it.
7. Do not allow pitchers to go home and re-create their game by throwing with "coach mom or dad." Once they are done on the field, they are done for the day. Encourage families to follow this approach for the sake of the child's health.
8. In an attempt to establish consistent pitching performance, athletes need to gain and maintain strength as well as control of their bodies. An age-appropriate strength, balance and coordination routine for your pitchers should be taught at the beginning of the season and should be

performed by pitchers the day after each outing. These activities help to ensure that the athlete is taking care of his/her "pitching muscles" on a consistent basis in preparation for the next outing. Simple programs should address balance, as well as strengthening for the rotator cuff, back, core and leg muscles. Remember that the season is long, and that without training, muscles fatigue and lose strength over time. Keep them strong for the long haul.

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