

Pitching Mechanics

Young pitchers need to develop a balanced and consistent delivery in order to maximize their potential and reduce the likelihood of injury.

Grip

Most pitching grips use two fingers on top of the ball, with the thumb underneath. A young pitcher with a small hand may need to use three fingers across the ball. Have a relaxed but firm grip. Avoid choking the baseball.

Types of Grips

- Use a four-seam grip for maximum speed and control.
 - Place your index and middle fingers across the horseshoe area of the ball.
- Use a two-seam grip for more movement on the ball (sacrificing some speed).
 - Place your index and middle fingers along the two seams.
 - The side of your thumb pad goes underneath at the mid-point of the ball.

Key Points

- Relaxed but firm grip.
- Fingers on top of the ball.
- Thumb underneath the ball.

Stance

Pivot Foot The foot on the same side of the body as the player's throwing arm.

Stride Foot The foot on the same side of the body as the glove hand.

- Keep both feet on the rubber (the area of the shoe between the front spikes and the back spikes touches the front edge of the rubber) or move your stride foot off and behind the rubber.
- If you are right-handed, stand on the right side of the rubber; if left-handed, stand on the left side.
- Stand comfortably with your shoulders and hips square to the plate and your weight slightly more on your throwing foot.
- Hold the ball in the glove or in your throwing hand (glove helps disguise pitches; hand allows quicker reactions if somebody moves from a base).

Key Points

- Comfortable stance.
- No runner on base - square to plate.
- Runner on base - set position.

Wind-Up

The wind-up gives the pitcher rhythm and momentum necessary for an accurate and powerful pitch.

Key Points

- Keep your eyes on the plate.
- Take a short step back, transferring weight to your stride foot, while moving your hands into position.

- Your hands may move to the top of your head, remain gathered near your chest or move to a comfortable point between these two extremes.
- Turn your pivot foot 90° (square to home plate) so that the outside of the foot comes to rest in contact with the front edge of the pitching rubber.
- Lift your stride leg straight up, with your thigh and shin forming at least a 90° angle.
- Keep your head centered over the front side of your pivot foot for good balance.

**With runners on base, the pitcher should assume the set position. From this position, the pitcher can either deliver the ball to the plate or pivot and try to pick off a base runner.

Set Position

- Stand with your back facing first base (right-handers) or third base (left-handers).
- Feet should be parallel and about shoulder width apart.
- Outside of pivot foot should touch the front edge of the rubber.
- Bring hands together in the area between your chest and belly-button.

Gathered Position

- Maintaining balance over the pivot foot is essential during this brief pause and momentum gathering phase.
- Head remains centred over the front side of the pivot foot.
- Eyes are level and focused on the plate.
- Shoulders are horizontal and square to the plate.
- Glove-side hip points toward the plate.
- Hands are together in the area between the chest and belly-button.
- Elbows relaxed and pointing down towards the ground.
- Stride-leg thigh is approximately parallel with the ground.
- Stride foot is relaxed with toes pointing to the ground.

Key Points

- Weight back and balanced over the pitching rubber.
- Head centered over the front side of the pivot foot (middle of body).

Stride

- As the pitcher strides forward, the hands break and the momentum is transferred toward home plate (slow and controlled lower half of the body).
- A relaxed stride foot leads straight forward, feeling for the ground (imagine your foot sliding down a playground slide).
- Both thumbs rotate down as your hands break (break hands thumbs to thighs).
- Ball separates from glove with the palm of the throwing hand facing down and fingers on top of the ball.
- The path of the throwing arm to full extension is down, back, around and up through release.
- Glove-side hip remains closed and pointing toward the plate, until the stride foot is down and the torso begins rotating.

Key Points

- Slow and controlled lower half positions the body for torso rotation at stride foot landing.
- Eyes and head remain level with the plate (don't tilt or pull head off line).
- Balance and body alignment.

Landing And Release

A T-Position for throwing is created through the proper positioning of the player's arms, hands and torso. The player's arms and hands form the top crossbar of the T, while the torso forms the base. This is the final position before the throwing hand rotates and starts on a forward path toward the release point.

- Land on a slightly closed front foot with weight centred over the ball of the foot. Stride leg should be flexed and firm.
- Straighten the stride leg by rotating on the ball of the stride leg foot (momentum is transferred up through the body to the throwing arm). Be careful not land on a stiff/locked front leg.
- Head is behind stride leg knee at landing and finishes out over the stride leg knee after release.
- Throwing arm elbow must be at least the height of the throwing shoulder through the release point.
- Ball is released in front of your throwing arm shoulder, in the area of the tip of your cap.
- At release, your throwing arm is slightly bent at the elbow.

Key Points

- T position.
- Balance.
- Control.

Follow-Through

Coaches need to watch young pitchers, to be sure they don't drag their pivot foot during the follow-through phase of the delivery.

Key Points

- Glove arm rotates inward and down, coming back to rest in the area between hip and chest.
- Throwing arm completes a smooth arm path to full extension.
- Head stays on line with the plate and balance is maintained over the landing foot.
- Pivot foot elevates, releasing the back side hip for full hip rotation.

Warm-Up, Cool-Down Routines & Pitching Drills

Young pitchers, need to understand the importance of arm care. Progressive loosening of the arm must precede all hard throwing activity. The arm should be taken through a cool-down routine at the conclusion of the throwing activity. Coaches must make sure that eager young players never throw when the arm is sore.

Warm-Up

- 4 infield laps.
- Team stretch.
- Two 90-foot (27 metre) wind sprints with players running at about 75% of their maximum speed.
- Partner ball tosses by position, increasing the throwing distance until the players' arms are stretched and loose.

Cool-Down

- 3-5 minutes of long toss. Long-toss using a complete arm path and proper follow through (slight arc).
- Light jog (foul poles) with arms pumping.

Drop Step, Pivot And Gather

The goal of this drill is to create and maintain balance over the pitching rubber.

- Drop step, pivot and lift stride leg straight up and into the gathered position.
- Hold this position.

**As players develop balance, a second player can flip a ball to the pitcher as he/she arrives at the gathered position to ensure good balance and a slight pause.

Movement Towards Plate

The goal of this drill is to feel the proper timing of the hand break.

- Get into the gathered position (no glove).
- Place the tip of your glove hand baby finger against the inside area of your stride leg thigh.
- Break your hands (thumbs to thighs) as your stride leg goes forward.

Balanced Landing

- On a flat surface, assume a proper landing position.
- Deliver ball to partner 15-30 feet away, by shifting weight onto back foot and rotating on pivot foot.
- Follow-through, maintaining balance over the stride leg foot.
- Receive throw back from partner.

Long Toss

With this drill, the coach can emphasize:

- The complete path of the throwing arm.
- A strong and complete back foot pivot (shoelaces facing partner).
- A high elbow.
- A consistent release point. Avoid throwing the ball with a big arc.

**Distance must respect physical capabilities. It is very important that proper throwing mechanics are emphasized.

Two-Knee Partner Toss

This drill isolates upper body throwing mechanics. Coaches should emphasize:

- Closing front shoulder (in line with partner).
- Elbow and hand up.
- Front side extension.

**Throwing distance should be about 10 feet.

One-Knee Partner Toss

- Stride foot in proper landing position.
- Ball of stride foot aligned with knee of pivot foot leg, which is placed on ground perpendicular to the stride leg.
- Ball is delivered to partner.

The coach should emphasize:

- Closing front shoulder (in line with partner).
- Front side extension (head over stride foot knee).
- A high hand and elbow.
- Hand break down the midline of the body.

Lead Arm Mechanics

The goal of this drill is to create and maintain proper glove arm direction throughout the delivery.

- Proper landing position.
- Spotter beside each player to the outside of the stride foot.
- Spotter acts as a barrier to be sure that glove is not thrown out and to the side.