

Pitching – Mechanics Basics (Set Position)

Important Considerations

Before illustrating some standardized pitching mechanics it is important to note that every pitcher will have different capabilities in terms of skill level, muscle strength, range of motion and flexibility. This is not intended to be a 'cookie-cutter' approach to pitching mechanics but a guide to highlight some important mechanical points and how to identify opportunities for player improvement. No two pitchers are the same... we should strive to make them as mechanically sound as possible while adapting to their existing skill level as well as their physical and mental ability to make mechanical adjustments.

Getting the Sign



- Before coming to the set position, pitcher looks in to take the sign
- Back foot in contact with rubber.
- Can be leaned over or upright, feet at or more than shoulder width apart.
- Pitcher should do what is comfortable, will adjust to 'ready / set position' before starting to deliver the pitch.
- Ball in glove is preferred to avoid tipping pitches by having a 'pre-set' grip on the ball.
- ** important: once the pitcher has made contact with the rubber, the only way they can disengage is by stepping backward (i.e. toward 2nd base) with their back foot.... otherwise, it is a balk unless time is called in advance... do not disengage the rubber by stepping toward home plate or off the either side with the back foot – it could be considered a balk.

Set Position



- Throwing hand and glove come together, ball in pitcher's hand with grip needed to deliver the pitch.
- Small step back with front leg to between shoulder width and slightly less than shoulder width.
- As pitcher's front leg comes back toward rubber grip is adjusted as necessary before coming to set.
- Based on what is comfortable for the pitcher, ball and glove can be set together anywhere between belt and shoulders (adjustment can be made based on other mechanical factors, such as throwing arm path to release point).
- Back leg is at a straight to slightly flexed position, weight should be 70%+ on back leg (some pitchers will slightly tap their front foot before coming set to ensure proper weight distribution on back leg).
- Front foot is set at between heel to heel and front heel to back toe (latter preferred).
- Once pitcher has grip, weight distribution and hands together with ball in hand and in the glove, pitcher must pause (must be a discernable pause – safe to do a 'one-one thousand' count to ensure).
- ****Important:** again, if pitcher is going to not deliver the ball, he needs to disengage the rubber properly first to avoid a balk... the first move is to step backward (toward 2nd base) with back foot and 'clear' the rubber.

Leg Lift / Balance Point



- From set position, pitcher lifts knee (i.e. does not 'kick' using leg below knee) up to between mid-thigh level and stomach.
- Leg lift will bring front knee from aligned or ahead of glove side shoulder to at / or behind belt buckle. Should result in slight horizontal rotation of hips.
- Very little tension in bottom half of lift leg (this will help avoid urge to 'kick' during the leg lift and potentially go off balance).
- Glove and throwing hand should be in a comfortable position above the belt and below the head in the centre of body... where the glove is before the drive and delivery will depend on the pitcher's arm action and ability to get to the point of delivery effectively.
- Important – shoulders remain aligned with home plate (i.e. do not rotate with hips), eyes should be focused on target.

Stride



- After reaching top of leg lift, pitcher begins to separate throwing hand from glove while creating some flexion in back knee (i.e. not to the point the knee breaks down and pitcher cannot generate momentum toward home plate but back leg should not be straight to the point where the back knee is 'locked').
- Front leg strides toward home plate while hips and shoulders remain in line with the target.
- Ball should be at shoulder level or above, facing away from home plate when front foot hits the ground.
- Glove / non-throwing arm elbow are used to maintain direction toward target and keep shoulders in line.
- Just before contact with the ground, hips begin to open up and back leg rotates... shoulders remain in line with target – the goal is to create tension in the torso before beginning the delivery phase (next).
 - o Note: stride is subject to flexibility of pitcher and arm action... there is more opportunity to generate velocity if the stride is longer because the ball will potentially have more contact time with the pitcher's hand... however, a shorter stride could allow a pitcher to stay 'on top of the ball' and create more downward angle... the most important consideration will be to find a stride that allows the pitcher to deliver the pitch to target consistently and make small incremental adjustments thereafter.
- Throughout the Stride phase, pitcher's eyes remain on target and level.

Delivery / Release



- Delivery phase begins with front foot planted on ground, back leg rotating so knee and thigh of back leg and belt buckle are facing target.
- Tension created in the torso is released by 'clearing' the lead arm and pulling the elbow into the glove hand side of the pitcher – this allows the shoulders to rotate and become square to the target... can think of it as 'tucking' the glove to get it out of the way and allow the throwing arm to deliver the ball. It is important that the pitcher doesn't try to 'pull' the elbow into the side or risk flying open too early with the upper half and not giving the throwing arm ample time to 'catch-up' to the desired release point.
- At the point when shoulders become square with home plate, throwing shoulder should be a maximum rotation, elbow above or even with shoulder, ball rotated so fingers are behind the ball and ready to deliver to home plate.
- Back foot will disengage with the rubber as the pitcher's momentum shifts weight from back leg... to even weight distribution between back and landing leg... to, finally, entirely or almost entirely on landing leg at the point the pitcher releases the ball. Note that front knee should not get to the point where it is in front of the lead foot – if this happens, the pitcher's stride is too short.
- Landing leg should be flexed and act as a 'shock absorber', allowing the pitcher to tilt the upper body to a point where the chest and shoulders are over the front knee at the point of release.
- At the release point, throwing fingers will be behind and slightly on top of the ball – ball should be released from the finger tips.
- Throughout the Delivery phase of the pitching motion, the pitcher's eyes remain focused on the target and as level as possible.

Follow Through



- Once the ball is released, the pitcher's momentum should be allowed to carry on, avoiding trying to abruptly stop the natural follow through and deceleration of the throwing arm and upper body.
- Pitcher's belt buckle / belly button should be allowed to follow through and be facing the ground.
- Throwing shoulder will be pointing at target, glove arm elbow pointed back toward 2nd base area.
- Landing leg will naturally straighten to help maintain balance while back / driving leg should be allowed to release fully to the point where the bottom of the pitcher's heel is pointed somewhere between 45 and 90 degrees in relation to the sky.
- Once the pitcher's momentum has decelerated sufficiently, they should attempt to get themselves into an athletic 'ready position' and prepared to be a fielder. However, halting the follow through to get in a good fielding position is not as important as a completing the follow through to help avoid injury.