

Pitching Development

Sections of this document:

This document is structured around the core components of a good pitching delivery. Each section of the delivery will include 4 things:

1. Written description of proper technique
2. Suggested drills to reinforce either individually or with the team
3. Relevant links to supporting content online (preferably youtube videos to demonstrate the point)
4. Common pitfalls with players, things to look out for, suggestions on how to communicate with the player

If you've watched a major league game, it is obvious there is more than one way to skin a cat when it comes to pitching deliveries. Funky deliveries abound and any pitching guide needs to recognize a couple of things:

1. Every pitcher is different and will have some elements of their delivery hard-wired into them (I would suggest because of their physiology) that will be difficult to change. Case studies of really good pitchers whose delivery you probably wouldn't try to copy:
 - a. Clayton Kershaw – double leg kick
 - b. Alex Wood – initial arm path and front side direction
 - c. Madison Bumgarner – arm swing and cross-fire
 - d. Chris Sale – where to start?
2. What does the perfect delivery look like? "Perfect" is relative to each pitcher, but for those who find that answer maddeningly unsatisfying I recommend looking at Youtube videos for:
 - ✓ Mariano Rivera
 - ✓ Pedro Martinez
 - ✓ Jose Quintana
 - ✓ Matt Harvey
 - ✓ Max Scherzer
3. There are some elements of the delivery that are "negotiable" (e.g., starting position), while others are not (e.g., closed front side)
4. You as a coach will need to focus on the "non-negotiable" elements of the delivery while trying to get a feel for how hard to push on the "negotiable" elements.

GRIP

- A. Keep it simple – 4 seam fastball grip (we'll talk other pitches later) for all players



- B. Kids fingers on top should have some space between them (almost a finger width between them)
- C. Thumb directly below top fingers – should split the ball in two

PITFALL: because of smaller hands kids will want to slide their thumb up on the ball – encourage them to keep it in the middle! Kids with really small hands can go with the middle 3 fingers on top. Get that pinky out of the way and keep the thumb at the bottom.

FLAT GROUND THROWING:

- A. Ready position (feet a bit more than shoulder width apart, draw line between the heels of both feet – should point at the target, and front toe pointing slightly to the right of the target [for a right-hander]).
Visual: imagine standing on a balance beam pointed at your target.



- B. Arm path – starting position, hands together at chest height in the middle of body
- C. Arm path – breaking the hands
 - ✓ Knuckles to the sky
 - ✓ Break close to the body
 - ✓ Arm swing straight back

- ✓ Glove side pointing at target – could be glove, could be elbow (elbow pointing at the target is preferred)
 - ✓ Show the ball to the centerfielder, ball above the shoulder
 - ✓ Elbow – straight to flexed at 90 degrees
 - i. At this point the player is at the **LAUNCH POSITION** or the “**POWER T**” (see Youtube video #2 below)
- D. From launch position, begin rotation into delivery – many things happen in close succession. We’ll list them out here but video is crucial at this point.
- ✓ Glove side leads – pull glove into heart
 - ✓ At this point, the throwing arm begins the path towards release

PITFALL: at this point, the elbow “collapses” and drops and the bend at the elbow gets below 90 resulting in a “short-arm” and significant loss of velocity and command

- ✓ Fingers stay behind the baseball throughout, hips are rotating, front leg is strong and slightly flexed, rear foot is “squishing the bug” on the balls of the right foot and chest is now facing target. We are now at the point of release.

PITFALLS: most of them happen right here!

1. Throwing elbow drops as soon as the player begins rotation into delivery – stay on top of the ball!
 2. Glove side is lazy and simply drops during delivery or the pull of the glove into the chest is weak
 3. Glove side pulls off to the side which initiates a number of problems – namely a sideways rotation of the top part of the body that drops the elbow which destroys command!
- E. Follow through:
- i. Eyes and head on target throughout entire delivery and finish
 - ii. Arm path should be 11 to 5 or 10 to 4 (ideally 11 to 5) if you are looking head-on at your pitcher

B through E all hang together – here are a couple of good video clips to demonstrate the entire movement

DEMONSTRATE

1. <https://www.youtube.com/watch?v=V6XTVk7FPfI> (5 mins – perfect for beginners)
2. <https://www.youtube.com/watch?v=-X26cwcxfRU> (10 mins – check out 5:30 for the “Power T”)

PRACTICE DRILLS

1. Players pair up 20 feet apart, starting in ready position. Practice breaking hands/glove and getting to launch position. Stop, have player check themselves:
 - a. Showing ball to centerfielder
 - b. Elbow at shoulder height, straight back
 - c. Glove side elbow point straight at target (or slightly to the right – this is what “closed” means) and also at shoulder height

- d. Chin close to glove side shoulder
- e. Throw (no stride, pull glove to chest) – and have the player say “YES!”
- 2. Progression: Same drill as #1 but:
 - a. Add a very small stride – you want to see the player “load up” on their back leg as they start they break their hands and the front foot is mostly being picked up and put back down in the same spot.
- 3. Progression: Same drill as #1 but:
 - a. Start in the “Power T” position
 - b. Player takes a skip forward by placing their back foot where the front foot started – and throw. This is mimicking the throw an infielder or outfielder will make during a game. See 3:40 of first Youtube video.
- 4. Same drill as #1 but:
 - a. Use baseball with a strip of black tape (or a marker) around the centre of the ball right through the four seam grip. Try backing up to 40 feet.
 - i. <https://www.youtube.com/watch?v=5aQQ1cvtZII> (1:50)
 - b. Checking the rotation on the ball – during flight the tape should look like a straight line. This means the player’s hand is directly behind the baseball – getting good finish, not wasting velocity by cutting through the side of the ball. All effort is directed through the centre of the baseball.
 - c. If the black line appears wobbly, the player is releasing off the side of the ball. This is called “getting around the baseball”.
- 5. Same drill as #2 but:
 - a. Play “head and shoulders” – receiving player gives a target in the middle of the chest. Thrower aims for either chest or head. 2 points for a “head shot” and 1 point for a “chest shot”. First player to 10 wins.
 - b. Why? Always throwing with a purpose!! Always throwing to a target.

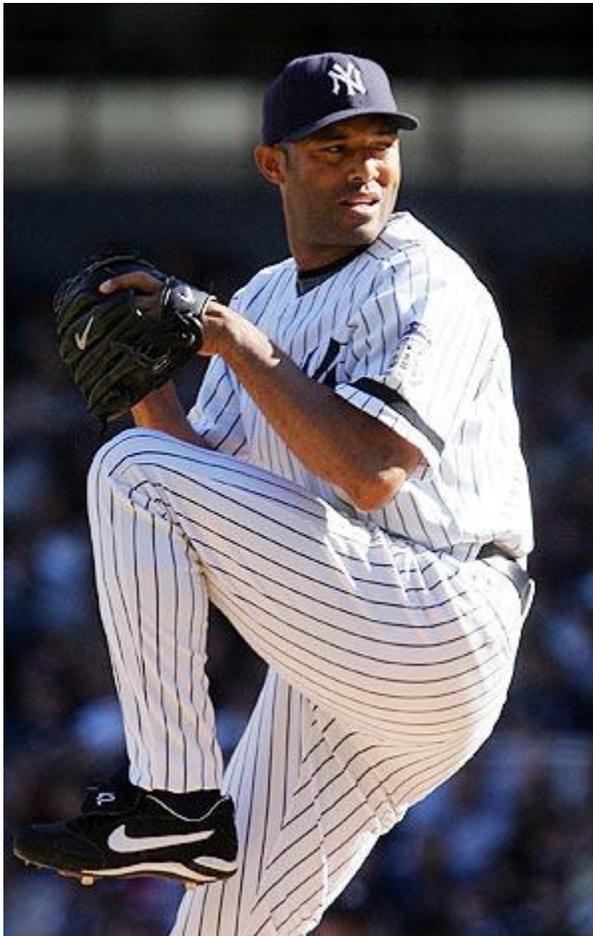
PITCHING

The mechanics above apply to the pitching delivery with a number of add-ons

- A. Starting position: have pitchers start their delivery from the “set” position – no windup!!!
 - ✓ Windup is unnecessary “clutter” in the delivery and does more harm than good at this age – particularly with respect to balance.
 - ✓ The most important pitches any pitcher makes are with runners on base – from the set position. Get comfortable pitching from the “set”!
- B. Using a right-hander as the example:
 - ✓ Standing in front of the rubber (not on it!) facing 3B, right foot is right up against the middle of the rubber, left foot about about a foot apart. Both toes pointing at 3B.
 - ✓ Hands together comfortably at the waist – everything should be relaxed.



- ✓ Lift left leg (lift it or pick it - don't kick it or swing it!) so thigh is roughly parallel with the ground.
- ✓ Balance at this point is **crucial!!** The player should be able to stop and freeze at this point. Knee to the foot of the lift leg is completely relaxed.



- ✓ Next movement should be to “show the player’s left butt-cheek to the hitter”. It is a slight hip turn to help ensure the front side (the glove side) stays closed as long as possible.

- ✓ Lift leg then comes almost straight down and somewhere close to the ground (1 foot) begins the smooth path towards the landing spot. As the player becomes more and more balanced, you can coach to a more “explosive” fall towards home plate. (look for Marcus Stroman or Sonny Gray videos to demonstrate how little guys can throw 95 mph).
- ✓ Meanwhile, at the same time the lift leg starts down, hands separate exactly as described above under “arm path – breaking the hands”.
- ✓ Upon landing (balanced, not on the heel or the ball of the foot) with front foot pointing slightly closed, the player should be in the “Power T” described above.



- ✓ Stride length can vary but generally the stride should be about the height of the player
- ✓ Follow through and release are as described above but given the additional intensity of the delivery, the player should:
 - i. Finish low – throwing hand finishing past the landing knee
 - ii. Back leg finishes by coming off the rubber and foot to the sky
 - iii. Exaggerated rear leg finishes are outstanding – they are the result of a violent hip turn through the delivery which may be more applicable to older players
 - iv. Rear leg comes around to land beside the landing leg – a good fielding position. Pitcher must now turn into the 6th infielder and be ready to make a play!



- ✓ These last steps above - beginning with the leg lift - happen quickly and video is crucial to understanding how it all comes together.

DEMONSTRATE:

- ✓ <https://www.youtube.com/watch?v=-X26cwcxfRU> (same video as above)
 - 3:33 – great for balance
- ✓ <https://www.youtube.com/watch?v=g8VVG8ytlg>
 - This is a simple 3 minute video featuring Mariano Rivera

PITFALLS: (several mentioned above in the flat ground section)

1. **Hands separate too late** – arm is too low at landing. Really difficult to recover from
2. **No balance at leg lift** – really difficult to be consistent if the player can't balance at this point
3. **Rushing!** Related to #2 - jerking the leg lift and “jumping” at the hitter. Important to coach to a smooth and controlled “fall” towards home plate. As the player gets older and masters the basics we can start talking about more tempo and explosiveness through the delivery.
4. **Opening up the front hip**: during the stride. Instead of landing “closed” with the front foot pointing slightly to the 3B side of the plate and a straight line through the hips towards the plate, the front hip flies open during the delivery robbing the player of velocity.

5. **Glove side laziness:** As above, young kids are prone to thinking only about their throwing arm and get lazy with the glove side. Encourage them to stay strong with it – it’s worth several MPH!
6. **Cutting off the delivery:** an arm path following release that is across the waist. Usually it results because the player is standing up very tall through the delivery and wants to watch the flight of the ball. Or you get young kids with strong arms who just want to “muscle up”. It’s hard on the shoulder and compromises command.
7. **Recoil at the end of a delivery.** David Price is a great example of that today. Recoil is the tendency to release the ball and then immediately retrace the arm path backwards – it looks like the finish of a whipping motion. Recoil shortly after release is hard on the shoulder and hurts command.

PRACTICE DRILLS:

1. Balance drills – here are 3 good ones: <https://www.youtube.com/watch?v=ydBcOcfUjCo>
2. More good drills - <https://www.youtube.com/watch?v=Hg4x1RkPMxQ>
 - a. Wall drill: right at the start (teaching hip turn at the top of leg lift)
 - b. Rocker drill: 1:45 (teaches a good hand separation and finish on target)
 - c. Figure 8: 3:00 (teaching pitcher to stay closed during delivery)
 - d. Toe Tap Drill: 8:00 (teaches the correct path of the front leg)
 - e. Note that I’m not a fan of all the drills in this video!
3. Hang a hula hoop on a fence and have the pitchers practice hitting the target – play around with this one and come up with different targets

THE BARE BONES:

For young / new players, all of the instruction above will likely prove to be too much to absorb and put into practice. With that in mind, the following is a suggestion for basic instructions:

1. **Balance:** have the player demonstrate that, from the set position, they can lift their stride leg parallel to the ground and hold it for a count of 5.
2. **Stride:** have the player demonstrate that they can stride directly at their target. Draw a line they need to stay on during their delivery
3. **Power T:** have the player demonstrate that they can land in the Power T described above. Front elbow pointing at their target, throwing arm up and ball pointing at the centerfielder.

These 3 probably account for 90% of a sound and repeatable delivery. If they can master these 3 elements, many of the other pieces will fall into line on their own / or can be added to later once these 3 are locked down.

OTHER PITCHES:

- A. Philosophy at Minor/Major level (and perhaps beyond) should be:
 - ✓ **Gas and a great change-up.**

- B. Fastball command is crucial – everything falls apart without it, especially as the player matures. A decent fastball in a great spot is the hardest pitch to hit and should be the easiest for a pitcher to repeat. Work on it – especially on the pitcher’s glove side of the plate which is the hardest location to master.
- C. A great changeup is the hardest pitch to master and the most difficult off-speed pitch for advanced hitters. Again, start the kids working on it now.
- D. How to throw a change-up. If ever there was a “feel” pitch, this is it. Some ways to throw it:
 - ✓ Circle change: first finger + thumb make a circle or almost circle on the side of the ball; other three fingers spread out across the top. The more common grip in MLB.



- ✓ Three finger change: thumb and baby finger underneath, middle 3 fingers spread across the top. Trevor Hoffman made it to the Hall of Fame because of this grip.



- E. No matter how the pitcher grips it there are several keys to an effective change up:
 - ✓ **Loose grip** – you want the ball to almost “slip” out of the hand. This makes it hard to control but takes velocity off the ball. It also gives the appearance of great arm speed which reinforces the hitter’s perception that a fastball is on the way. Hold the ball like an egg (don’t break it!)
 - ✓ **Same delivery as fastball** – the purpose of a change-up is to disrupt a hitter’s timing by having them think a fastball has been delivered. Big exaggerations in a windup will work on young players but are dead giveaways to better hitters. Try to keep the delivery the same – tell your pitchers to “think fastball” the whole way and let the grip do the work!
- F. **Curveballs**: Over-rated for younger players who fall in love with it when they get that first hitter to hit the deck.

- ✓ Bad for the arm? Probably not if thrown correctly. Odds of throwing it correctly for Minors and Majors? Low. Kids will want to generate the correct spin by violently snapping their wrist. I don't believe this is good for kids' elbows.
- ✓ Grip: middle finger gripping the inside of the "horseshoe" and thumb gripping the inside of the seam below



- ✓ Spike grip: Same thing but dig the index finger into the middle of the seam. Harder to control, bigger break for many pitchers, definitely not for kids



- ✓ Delivery:
 - i. The curve happens because the pitcher generates almost the reverse spin of a baseball. For a right-hander think of the spin as 12-6 on a clock or more likely 11-5 .
 - ii. To do that, the pitcher's fingers **MUST** be on top of the ball at release – if they are not getting their throwing elbow up at when their front leg lands they will have problems getting on top.
 - iii. The arm path is slightly shorter. For a fastball, the pitcher is encouraged to get maximum extension upon release. Not so with a curveball. Because it is so crucial to stay on top of the ball, encourage a shorter arm path to make sure the arm doesn't lag at release.
 - iv. At release the hand should be on the side of the ball – visualize a karate chop straight down. The pitcher, with their fingers on top and hand at the side are **pulling down** violently on the ball to generate the correct rotation.

When should pitchers start throwing curveballs?

- ✓ There's no right answer. I will encourage my kids to hold off until they are 14. Not necessarily because I'm protecting their arm (although that's part of it), but rather because I want them to

master fastball location and a great changeup. Every curveball they throw is a fastball/changeup not thrown.

PITFALLS

1. Not getting the fingers on top of the baseball. Usually this is because the throwing arm never got to the “Power T” position in the first place.
2. Snapping the wrist to generate the spin – this is almost always done in a way that generates 10-4 or even 9-3 spin. A lazy floater that will fool young hitters and build terrible habits for the pitcher.