**THIRD QUARTER (3Q)**

Successful Third Quarter positions have great commonality. Let’s take a look at our Pro Models, Jennie Finch and Lisa Fernandez. They both have a reversed posture that is beginning to move into a more upright position. Their stride legs have established a firm flexed solid base against which energy can be thrown. They have created appropriate spacing with open hips and weight over the balls of the feet. There is slight flexion in their throwing elbows that creates hand and ball lag necessary for sequencing. The diagonal drag is beginning with their throwing legs. And their glove arms are retracting and lowering in a symmetrical relationship with the throwing arms.

Let’s take another look at both Jennie Finch and Lisa Fernandez at Third Quarter from the Target View.

Deviations in Third Quarter happen for several reasons. Let’s examine these reasons by asking assessment questions about your pitcher’s motion. And then our youth models will demonstrate the common problems and provide a working set of drills to help you find solutions.

**The first question to ask will be “Is the pitcher starting to move into a more upright position?”**

If the answer is no, the pitcher’s posture may be stuck in a reverse position. Here, our student model has too deep of a reverse posture line. This makes the start of the transition into the upright line more difficult.

And if the answer is no, the pitcher might be bending at the waist. In this example, the pitcher bends at the center of her body which weakens her core and then her shoulders move ahead of the rest of her body. This will ultimately break down healthy posture lines.

**The next question to ask will be “Has the stride leg established a firm flexed solid base against which energy can be thrown?”**

If the answer is no, the pitcher’s weight may not be settled into the arch of the foot. Here, the pitcher is pulling up onto the ball of her foot. This will not give her a solid base for resistance.

If the answer is no, the pitcher might be pushing her energy up from the ground versus pulling down into the ground. Because the student pitcher is pulling her energy up through her shoulders, her stride foot cannot establish itself into the ground with enough weight and force.

And if the answer is no, the pitcher’s stride might be off line. In this example, the pitcher has landed to the glove side of the power line. This will cause her body to lean over into the power line and will detract from the value of a strong and established front side.

**Another question to ask will be “Is there appropriate spacing with open hips and shoulders over the balls of the feet?”**

If the answer is no, the pitcher’s hips might have started to rotate too early. In this student example, appropriate spacing was lost as the hips began closing in this Third Quarter phase.

And if the answer is no, the pitcher’s front leg might be locked. Here, the pitcher has straightened her front side and by doing so she will place her shoulders back over her heels. This straight and locked posture removes good athletic flexion.

**The next question to ask will be “Is there slight flexion in the throwing elbow to create hand/ball lag?”**

If the answer is no, the pitcher’s throwing arm might be locked. In this example, the pitcher has a straight and relatively inelastic throwing arm. Ideally, the arm should be long yet have a degree of flexibility in the elbow that creates lag.

If the answer is no, the pitching hand might be placed on top of the ball versus on the side of the ball. Here, the pitching model creates an inflexible elbow because her hand is on top of the ball in this Third Quarter position versus being on the side of the ball with the palm facing away from the body.

If the answer is no, the pitcher’s arm circle could be out of alignment. In this example, the pitcher’s arm path is off line of the target. To realign, the pitcher must then force the arm back onto the path. This will create a tension in the elbow and therefore an inability to create ball lag.

And if the answer is no, the pitcher might be rushing and cutting her arm circle short. The pitcher in this example has had several twisting and off line movements earlier in the motion. These inefficient movements take a longer period of time to complete. Because her entry to Third Quarter is off line, she now must cut her arm circle short and rush to be on time at Release.

**And the final question to ask will be “Is the glove arm retracting and lowering?”**

If the answer is no, the glove arm might not be in a symmetrical relationship with the throwing arm. In this example our student has a high level of tension in her glove arm. She does not lower it in a way that assists the sequencing and acceleration of the throwing arm. In this case, her glove arm is held tightly and pulled down after the whip of the throwing arm.

If you discover that your pitching movements deviate from the fundamentals of our pro models, please refer to following Third Quarter drills.

**?**

**Is the pitcher’s body posture moving into a more upright position?**

**Common Problem 3Q-1: Posture is stuck in reverse position**

**Solution 3Q-1a: Assisted Sprint – Reverse to Upright**

***Makes the reverse to upright posture transition more powerful by pulling the pitcher along at a faster rate.***

*The Assisted Sprint Drill attaches a harness around the pitcher’s waist and from the front, assistance is given through a bungee cord pull. The short/tight cord is affixed to the glove side of the waist and held by the coach. This harness pulls the pitcher along at a rate faster than the usual stride therefore stimulating the nervous system to operate at a faster speed. To be successful, the pitcher must choose strong and athletic legs over locked legs.*

*This assisted sprint application focuses the coach’s pulling efforts from foot touch though the finish of the pitch. This will emphasize a good conversion of the reverse angle at third quarter to the upright posture through the finish. For pitchers who are stuck in reverse posture and cannot accelerate through the release, the bungee will help pull out of this area and into an upright posture.*

**Common Problem 3Q-2: Core is weak causing bend at waist**

**Solution 3Q-2a: Partner Pull**

***Partner pull-ups with glove arm can be applied to the pulling of a strong and solid core into the output of the pitch.***

*As the pitcher moves from Third Quarter into Pre Release, the glove should begin to retract. The glove arm will pull a strong and solid core into the output of the pitch. The Partner Pull Drill starts with setting the coach up onto a slightly elevated surface. The coach should be in a location where she can grab onto a fixed structure for support. Then, the pitcher will hold the coach’s hand with her glove hand. To understand the power of the glove side, the pitcher will first hang onto the coach’s hand and hold up her body weight with her arm. The pitcher can program the glove arm by doing mini pull-ups. Once the coach determines that the pitcher is using the glove side effectively and that the core is strong and solid, the pitcher can do dry-run pitches from Third Quarter through Elbow Release. The goal at this point is to keep a solid pull on the coach’s hand and the hips open. Collapsing, rotating too early or falling forward will cause a noticeable weakness in the partner pull levels. Corrections should be made so that the pitcher achieves a strong pull through the entire pitch.*

**?**

**Has the stride leg established a firm flexed solid base against which energy can be thrown?**

**Common Problem 3Q-3: Weight is not settled into the arch of the foot**

**Solution 3Q-3a: Shoeless Stride Foot**

***Removing the stride foot shoe creates awareness its role in establishing a solid base.***

*The Shoeless Stride drill creates stronger awareness of the stride foot. This will help the pitcher determine if the weight is properly settled into the arch of the foot. Done incorrectly, the pitcher will feel the weight is staying up on the ball of the foot or rolling to the outside part of the foot. Taking the shoe off enhances the ability to feel the use and steadiness of the stride foot. This feel will empower the pitcher to make necessary changes more quickly so that a solid base can be established on that front side. As a safety precaution, please be certain that the surface has proper traction for the foot prior to doing this drill.*

**Solution 3Q-3b: Foot Holds**

***Coach provides manual pressure to the stride foot upon contact with ground to establish a solid base.***

*For a pitcher who is not settling her weight into the arch of the stride foot, a manual foot hold will help. Energy must be thrown against a solid front side so it’s imperative that the front foot has established itself. If the stride foot is not down, the pitcher will feel her weight is staying up on the ball of the foot or rolling to the outside part of the foot. To execute a proper foot hold, the coach must be kneeling very low to the ground and outside of the 24” lane. Set up just in front of where the stride foot will land. The coach must react quickly and accurately to find success in this drill. When the foot touches, the coach must immediately grasp the top of the foot and apply as much pressure as possible down and in through release.*

**Common Problem 3Q-4: Energy is being pushed up from ground versus pulled down**

**Solution 3Q-4a: The Weightlifter**

***Hold a heavy weight in the glove hand to help settle weight into the ground at third quarter.***

*The movement in third quarter must settle down into the ground. If a pitcher begins to stand up in this phase, she will fight the benefits of using the ground for energy. Standing up will push the power away from the “grounding” effect that is required for the sequencing of the shoulder, elbow, wrist and fingers. The Weightlifter Drill requires the pitcher to hold a heavy weight in her glove hand. Weights can range in size from 15lbs to 25lbs depending on the strength of the pitcher and the depth of the bad habit. The pitch can be thrown laterally or from a start on the mound. It’s important to work without a ball first at a controlled pace then graduate to a ball in a slightly faster speed. By holding a heavy weight, the core and legs become more engaged in the pitch. Upon foot touch the added weight helps create that strong and settled base against which weight can be thrown. Please note that this is a drill to help settle weight at third quarter. The glove hand cannot be used for any normal extension to the catcher or symmetrical balance in the pitch.*

**Solution 3Q-4b: The Head Press**

***Apply pressure to the top of the head to help settle weight into the ground at third quarter.***

*A great movement in third quarter is one that is downward and settles into the ground. A pitcher will fight the benefits of using the ground if she is starts to pull up onto her toes by standing up too early. Pulling up will interrupt the “grounding” effect that is required for the sequencing of the shoulder, elbow, wrist and fingers. The Head Press requires manual assistance from a coach. The coach will place her dominant hand on top of the player’s head prior to the start of the pitch. Throughout the motion, the coach will apply a constant downward pressure to the top the head while the pitcher is moving forward. This will prevent standing up too early in the pitch and will keep the core and the legs engaged and grounded prior to and during release. It’s important to note that coaches must stand on the glove side of the pitcher for this drill.*

**Common Problem 3Q-5: Stride is off line**

**Solution 3Q-5a: Plywood Line Pitches**

***A safe way to immediately assess the placement of the stride in Third Quarter.***

*Pitchers respond well to instant objective feedback that can be felt. The Plywood Line Pitch drill provides a safe way to give a pitcher the ability to immediately assess whether or not the stride was on the power line. Built with ½” thick plywood, the plank is 6” wide by 8’ long. It is affixed to a larger plywood surface with a built-in mound for added weight and stability to the stride surface. The pitcher can throw with or without the ball and at a slower “feel” speed all the way up to full speed. If the stride is off line, the pitcher will feel the bottom of her foot landing off of the plywood. Missing the plywood will give great feedback without causing the pitcher injury from stepping onto a barrier or off of a taller beam.*

**?**

**Is there appropriate spacing with weight over balls of feet and are the hips open?**

**Common Problem 3Q-6: Hips have started to rotate**

**Solution 3Q-6a: Playground Ball Pinch**

***Pressuring a playground ball with the legs will reinforce good spacing and open hips.***

*The goal of the Playground Ball Pinch drill is to reinforce good spacing while keeping the hips open. This drill must be done laterally. The pitcher will set up on the power line and hold the playground ball by pressuring the inside of her legs. Starting with weight on the throwing leg and in an attacking posture, transfer into the positive move with a collected and connected stride. Reverse the posture during the stride and release the pitch, keeping the playground ball pinched and the core elongated and strong. If the stride becomes disconnected, the ball will drop. The ball will also spin out of the legs if the pitcher rotates too early in the motion. To successfully complete this drill, the pitcher must stay connected while delaying rotation. This will keep a consistent line of back to front pressure through the ball.*

**Common Problem 3Q-7: Front leg is locked**

**Solution 3Q-7a: Knee Deeps**

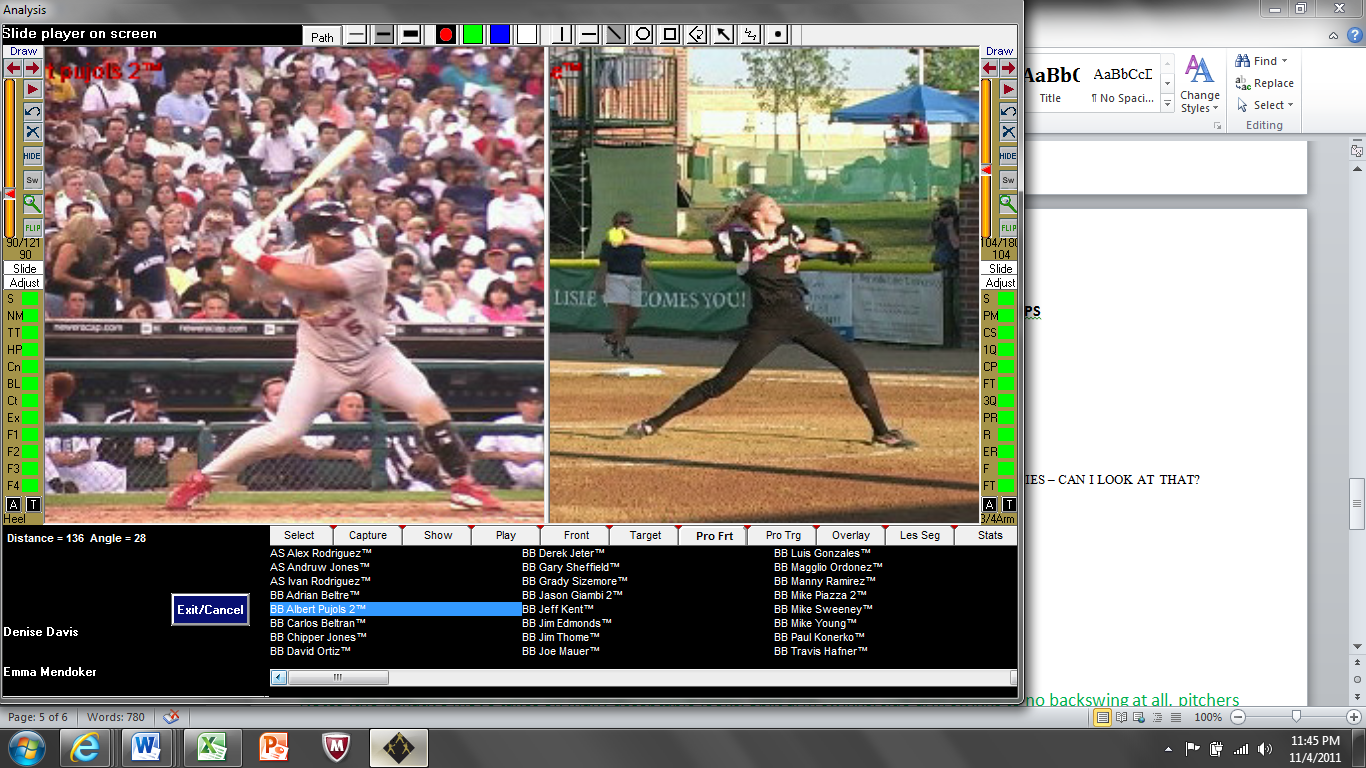
***Throw pitches with extremely bent legs and from a much lower position to trigger better athletic use of legs.***

*Getting good spacing by using athletically flexed legs is critical to the success of the pitch. A pitcher’s ability to generate power will be compromised if the legs lock prematurely in the motion. Knee Deeps are pitches that are thrown with extremely exaggerated bent legs and a center of mass with is much lower than usually required. The pitcher must stride forward from either a lateral position or from facing the catcher and throw the pitch by getting as low and as open as possible. The pitcher is only permitted to stand tall again long after release. Positive repetition of this drill will help the pitcher will have the ability to feel and correct when the legs straighten too early in the motion.*

**Solution 3Q-7b: Throw/Hit/Pitch – Stride Leg & Alignment**

***Relating pitching and hitting in the Third Quarter/Heel Plant phase.***

*There is great commonality between a pitch and a swing. The Third Quarter phase in pitching is similar to Heel Plant in hitting. In both Third Quarter and Heel Plant, there is a firmly flexed stride against which energy can be thrown. In both, the hips are open and is there still good spacing with shoulders over toes. Both the pitcher and the hitter are moving into an upright posture with a stride on the power line. And in both Pre Release and Connection, there is flexion in the elbow that creates lag. Relating the components of pitching and hitting might create a more broad athletic understanding and possibly a higher success rate. Review a pitch and a swing in this Third Quarter/Heel Plant phase to assess if they share the same posturing and characteristics of the Pros.*



**?**

**Is there slight flexion in the throwing elbow to create hand/ball lag?**

**Common Problem 3Q-8: Throwing arm is locked**

**Solution 3Q-8a: Arm Throw**

***Manual assistance drill by coach to help pitcher create a free and elastic arm circle.***

*Having a stress free shoulder and an elastic arm is essential to the sequencing the pitch. There must be a very slight natural flexion in the throwing elbow for it to create ball lag. If the throwing arm is locked, the sequencing that creates whip will be lost. The Arm Throw is a way for the coach to help a pitcher feel and trust the flexion needed to whip the arm.*

*To execute this properly, the pitcher must stand on the power line, with good spacing and an athletic stance. Facing the pitcher with a parallel stance, the coach will place support under the throwing arm to hold it up in a First Quarter position. The pitcher should allow all of her arm weight to fall into the coach’s hand. Let’s use a right handed pitcher as the example. With her right hand, the coach will hold the pitcher’s throwing arm under her elbow and part of forearm. The coach use her left hand to check for tension in the pitcher’s throwing shoulder and move it until it is completely loose. It is not recommended to throw the arm circle until the pitcher’s throwing arm is free of stress. The coach will lift the elbow, moving the pitcher’s arm through circle peak and will apply a downward pressure through Third Quarter. This will create the natural flexion that the elbow needs for hand and ball lag to occur. The coach and pitcher will continue through release as they grow independent of each other through the whipping phase.*

**Common Problem 3Q-9: Pitching hand is on top of the ball**

**Solution 3Q-9a: Frisbee Throws - Forehand**

***To effectively throw a Frisbee, the palm will be perpendicular to the ground at the backswing.***

*Studying and demonstrating the movements of other sports provide great example that can be applied to pitching. In this drill, we examine and practice the Forehand Frisbee Throw. The website* [*www.ultimatehandbook.com*](http://www.ultimatehandbook.com) *illustrates the proper mechanics of a Frisbee throw. Check out the information on that website.*

*The focal point of this Forehand Frisbee Drill is in the position of the hand in the backswing. The palm will be perpendicular to the ground. This will allow for elasticity of the arm, a healthy reversed posture and the ability to sequence the forward move and the release of the Frisbee. The body will move forward and the arm will lag. The sequencing moves energy from the shoulder to the elbow to the wrist and through the Frisbee. If the palm is on top of the Frisbee, the arm will become inelastic, sequencing will be disabled and the pitcher will not get the spin and lift on the throw. The pitcher will then need to force the ball from this change-up posturing.*

*The single most common fault is that the disc will turn over hitting the ground. This fault is caused by turning the wrist over during the release or using a locked and casting swing rather than ``straight'' at the target approach. Here are some suggestions for solving this problem: use a motion similar to snapping a towel; use more wrist rather than arm; lead the throw with the elbow; and follow through by pointing hand at the target.*

*The following information is provided on that website:*

*A frisbee requires forward momentum and spin to be thrown well. Posture your stance athletically with your feet shoulder width apart, hips open and your arm lagged behind your throwing leg. Bring your arm backwards, so that the disc is next to your rear leg and you feel your weight shift slightly back. In this throw, most of your force will actually come from the wrist snap and weight transfer, as your arm will move only a short distance. Bring your arm forward with considerable force. Your elbow will be the pivot point, and your hand will actually stop with a jerk before it reaches your front leg. The importance of the release point and wrist snap are magnified with this throw. A good starting point is to release the disc just after your wrist crosses your rear leg. Snap your wrist quite firmly as you release. This throw will not be successful unless the disc has good spin. After the disc leaves your hand, your first two fingers should remain firmly extended. Following through is not necessary or desirable in this instance.   
The single most common fault is that the disc will turn over hitting the ground. This fault is caused by turning the wrist over during the release or using a circular swing rather than ``straight'' at the target. The following are solutions to this problem: use a motion similar to flicking a towel; use more wrist rather than arm; lead the throw with the elbow; follow through by pointing hand at the target.*

**Common Problem 3Q-10: Arm circle is out of alignment**

**Solution 3Q-10a: Arm Path Check – Third Quarter**

***Provides a physical contact goal to achieve throwing arm extension and alignment in Third Quarter.***

*A foam noodle can give safe and instant feedback for arm swing extension and alignment. In this drill, a coach will hold the foam noodle.*

*To test if the throwing arm is aligned and extended in Third Quarter, the pitcher will set up in a Lateral Position on the power line. The coach will ask the pitcher to place the arm into her third quarter position which extends behind the throwing shoulder. The palm will be perpendicular to the ground. This is where the foam noodle will be held for evaluation. The goal for the pitcher is to make contact with the noodle to reinforce a long ride through third Quarter. If the pitcher rushes the circle by shortening or by leaning forward, no contact will be made. The coach can also monitor alignment of the circle. If the circle path is wrapped too far behind the pitcher’s body, set up on the throwing side of the pitcher and extend the noodle only far enough into the arm path contact would be made on a clean circle. If the circle is out of line or shortened, no contact would be made. The reverse can be done for an arm that is too far to the exterior side of the pitcher’s power line. If the coach sets up on the glove side, she can challenge the pitcher by placing the noodle where it can only be hit with good alignment and extension.*

**Solution 3Q-10b: Padded Wall Pitches**

***Keeping the arm circle path online will enable the ball contact with the padded wall in Third Quarter***

*To execute the Padded Wall Pitch, the pitcher will stand approximately 4” from the wall, with a stance that is about shoulder width apart and parallel to the padded wall. The Padded Wall Drill will enable the pitcher to feel smooth and continuous contact with a wall. This drill is similar to the Wall Trace but with a Padded Wall, the pitcher can trace the wall with the ball and then throw a pitch to the catcher.*

*The focal point for this drill is Third Quarter. More specifically, the pitcher will evaluate if the ball is maintaining contact with the pad from Circle Peak, to Foot Touch, through Third Quarter and into Pre Release. To be successful, the body must have an on-line circle path with reversed posture as it moves into Third Quarter with open hips, alignment on the power line and good spacing.*

*If done correctly, the pitcher will feel the ball drag behind the body as the arm lags. The pitcher will feel a deeper front knee and more pronounced spacing.*

*A pitcher may lose contact in this phase if spacing and alignment is compromised. Use this drill to determine at what point deviation from the circle path happens. And then make appropriate adjustments to create an open hip position, reverse posture and ball contact with the wall at Third Quarter.*

**Common Problem 3Q-11: Arm circle is rushing and cutting short 3Q path**

**Solution 3Q11a: Long Toss (Knee and Stride)**

***Long throwing distances can be achieved with attention to a deep third quarter with slight elbow flexion.***

*The Long Toss stretches the distance between pitcher and catcher. If well-thrown, it is possible for a pitcher to achieve flight time on a pitch thrown over 100 feet! The Long Toss is a great sorting tool of good and bad. Pitches that are forced or rushed require lots of effort and don’t get the intended lengthy results. But a pitch that is thrown with a long and elastic arm can go the distance. Much like a Frisbee throw, the long toss needs a few things to be successful. It needs to spin, to lift and to ride a line.*

*There are two ways to do a Long Toss.*

*The first is on one knee. The pitcher will kneel on her throwing leg and place her stride foot out at a distance that naturally reverses posture. The throwing knee will be lined up with the stride foot. The stride foot will be on a 45 degree angle. The throwing arm will swing long and free into a deep third quarter position. The elbow will have slight flexion, the hand will lag, and pitch release will feel effortless.*

*The second way to do Long Toss is with a stride. The pitcher will begin her pitch by facing the catcher. She will move out into an open position, reverse her posture, commit to foot touch with open hips and begin the decent into third quarter. While the result of the drill is to throw the ball long, the intention of the drill is to get deep into third quarter so that you can throw the ball long. Forcing the ball will result in not gathering enough energy in the third quarter. That will make it very difficult to throw longer distances.*

*If you have a short space (in this example, the pitcher has a distance of 65 feet) and want to feel the benefits of throwing longer, if possible, place the catcher on an elevated surface or throw to a target that is high on a wall. Try to hit the target as the ball is ascending or on the rise.*

**Solution 3Q-11b: 3Q Separation**

***Creates sequential movement from glove leg through release.***

*In Third Quarter, a pitcher should have slight flexion in her throwing elbow that creates hand and ball lag.  With this flexion, we begin sequencing.  The body will lead while the arm will lag and then follow.  The 3Q Separation drill places the pitcher’s glove leg up onto a 4x6 piece of lumber.  The pitcher will be in an open position with a slightly reversed posture and a throwing arm that is elastic.  The glove leg, more specifically, the knee of the glove leg will make a forward move to the target with the hips staying open.  The arm will then stabilize against the upper body to create whip thru Release.  The 3Q Separation drill works on the sequential timing of movement from deep in the glove leg through the release.  For an audio cue, the pitcher will hear and feel a two beat move.  “Boom”  “Boom”  The glove leg’s forward movement is the first “Boom” and the release is the second “Boom”.  Pitchers who rush their arm circle and cut the path short will hear only one beat, or one “boom”.  Rushing and forcing will detract from the ability to sequence.  The 3Q Separation drill will inspire a pitcher to separate these two critical beats.*

**?**

**Is the glove arm retracting and lowering?**

**Common Problem 3Q-12: Glove arm is not in a symmetrical relationship with throwing arm**

**Solution 3Q-12a: Glove Hold Mapping**

***Reprogram the glove arm to retract and lower in a symmetrical relationship with throwing arm.***

*To create a significant change in movement, pitchers must reprogram how the mind maps the course. If you have ever reorganized a frequently used storage drawer in your home, it’s not uncommon to return back to where something “used to be”. Learning a new movement, even if it is designed to be easier or save time, requires new mental mapping for a period of time.*

*For pitchers with moderate to severe problems with the glove hand working symmetrically with the throwing arm, using the glove arm is a difficult task. The Glove Hold Mapping drill requires the pitcher to simply take the glove off and hold it with the glove hand. This is a very subtle change, but will increase the level of focus to that region. The pitcher can now self-coach and work on pulling that glove arm down to the stride leg.*

*With persistent repetition, the pitcher will create a new road map of glove hand efficiency. This drill should be done without the ball first and then add the ball in while increasing speed.*