**PRE RELEASE (PR)**

Successful Pre Release positions have great commonality. Let’s take a look at our Pro Models, Jennie Finch and Lisa Fernandez. They are both moving into an upright posture. Their upper pitching arms are rapidly decelerating as they become stabilized along the body. There is hand and the ball lag behind the elbow. The stride legs are still firmly flexed as they resist the momentum that is built up behind them. Both have hips that are open and is there still good spacing with shoulders over toes. And finally, the diagonal drag of the throwing foot has begun.

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

Deviations in Pre Release 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 moving into an upright posture?”**

If the answer is no, the pitcher might be leaning forward. In this example, the pitcher’s posture line is angled forward. Her head and shoulders are in front of her hips. This causes a premature rotation of the shoulders and therefore, an inability to stabilize the upper arm against the body to creating whip.

And if the answer is no, the pitcher might be leaning back. Here our student model is well-postured to sequence good whip, but is unable to use the benefits of the force from her entire body. Her reverse posture decreases the value of the summation of force. The pitcher is not able to throw her weight and force behind the ball because she is angled back too deeply.

**The next question to ask will be “Is the upper pitching arm rapidly decelerating as it becomes stabilized along the body?”**

If the answer is no, the pitcher’s upper arm may be missing the window of opportunity that it has to stabilize itself against the body. In this example, the pitcher is not remaining open long enough to keep her upper body available to assist deceleration of the upper arm. Sequencing cannot begin without this key movement.

And if the answer is no, the pitcher’s upper arm and shoulder might be shrugging. The student model in this example is pulling up her shoulder and her energy as she enters the Pre Release phase. Instead using the energy from the ground and the resistance from her front side she is using her upper body strength to pull the ball. This muscle effort pulls force up and off of the direct line to the plate.

**Another question to ask will be “Is the ball lagging behind the elbow?”**

If the answer is no, the pitcher’s arm is might be locked with a hand position that is on top of ball. In this example, the pitcher’s throwing arm is inelastic with her hand placed on the top side of the ball. This will prohibit ball lag because it locks the elbow hinge and therefore removes its flexibility.

**The next question to ask will be “Is the stride leg still firmly flexed as it resists the momentum that is built up behind it?”**

If the answer is no, the pitcher’s stride leg might be locked. The pitcher in this example has straightened her stride leg in a phase prior to the Pre Release. In this specific instance, the pitcher is moving powerfully but because the stride leg is locked in a straight position, her energy is being pulled up off of the direct path to the target.

**Another question to ask will be “Are the hips open and is there still good spacing with shoulders over toes?”**

If the answer is no, rotation of the hips and shoulders might have occurred too early. In this student example, our model has straightened her stride leg earlier in her motion and this has triggered a stiff and straight posture and a premature rotation. Because of this problem in an earlier phase, she is not in an optimal open and athletic position to gain whip speed in the arm.

**And the final question to ask will be “Has the diagonal drag of the throwing foot begun?”**

If the answer is no, the pitcher might have an excessive and heavy drag. Here the pitcher is slow to start the development of the Figure Four of the legs because the entire instep of her throwing foot is being slowly dragged behind her as she enters the Pre Release phase.

And if the answer is no, the pitcher might be kicking the throwing foot behind the body. This off line course will misalign the path and the intent of the leg drive. In this example, the pitcher aggressively drags her throwing foot in direction that is not assisting her energy transfer to the target.

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

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**Is the pitcher moving into an upright posture?**

**Common Problem PR-1: Pitcher leaning forward**

**Solution PR-1a: Platform Stride Up – Reverse to Upright**

***Striding away, up and onto an elevated platform promotes a timely transition to an upright posture.***

*To prevent the motion from leaning forward and rotating upon pre release the pitcher must stay deep in her stride leg. If the stride leg straightens and resists too early, the pitcher’s upper body will lean too far forward and lose the ability to connect with the power from the legs. To prevent this leaning, place an elevated platform in front of the pitcher. (This secure surface can be up to 12” in height.) Starting at a slower and more controlled speed, begin the motion as a step is taken onto the platform. To be successful, at foot touch the pitcher must be open and in a reverse posture. Next, to**get up onto the platform, the pitcher must have a firmly flexed front side and use it to pull through the pitch release. Locking and leaning forward will make it extremely difficult for a pitcher to finish successfully on top of the platform.*

**Common Problem PR-2: Pitcher leaning back**

**Solution PR-2a: Platform Stride Down – Reverse to Upright**

***Striding off of an elevated platform frees the burden of a heavy and stuck reverse posture in the pre release***

*If the posture line is leaning back too far in the Pre Release phase, the body will be slow through Release. To erase some of the unnecessary amounts of reversed posture, step down from an elevated platform during a pitch. Begin by standing on an elevated platform that must be secure and up to 12” in height. Starting at a slower and more controlled speed, begin the motion as a step is taken down off of the platform.**Gravitational forces of the step down will assist producing a more natural and upright movement posture throughout the entire motion. Coming off of a raised platform with an excessively reversed posture will feel noticeably incorrect. Good posture will allow for healthy sequencing and a greater arm whip through release.*

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**Is the upper pitching arm rapidly decelerating as it becomes stabilized along the body?**

**Common Problem PR-3: Upper arm does not decelerate**

**Solution PR-3a: Energy Chain**

***The Energy Chain is a manual drill done by the coach to demonstrate the sequencing of arm whip.***

*The Energy Chain is a manual drill done by the coach to demonstrate the sequencing of arm whip. To execute this drill, the pitcher will set up on the power line in Third Quarter with hips open and good spacing. The coach will stand on the power line directly behind the pitcher and hold the pitcher’s arm in Third Quarter. The pitcher’s hand will rest on the coach’s shoulder. The coach will physically manipulate the arm to get the looseness and elasticity in the shoulder that the pitch requires. Once this flexibility is felt by the coach, the coach will take her free hand and apply direct and downward pressure to the pitcher’s upper arm. As the arm stabilizes against the body the coach’s free hand will move to the elbow creating lag in the pitcher’s throwing hand establishing the Pre Release position. Then she will move the pitcher’s arm one more “click” forward into the Release phase. Here pitcher’s fingers will be the last to depart from the coach’s arm as the energy has been thrown through the chain.*

**Solution PR-3b: Towel Snap**

***Snapping a towel imitates the sequencing of the arm whip during the pitch.***

*Studying and demonstrating the movements of other activities provide great example that can be applied to pitching. In this drill, we examine and practice a Towel Snap. Take a towel and twist it in jumping rope motion in your dominant hand. Then, sequentially extend your arm straight to the target, hit the brakes with your wrist, then quickly whip your dominant hand back toward you. This will make the end of the towel snap. The hand must decelerate to make the tip of the towel accelerate. The same concept applies during the pitch as the upper arm must stabilize against the body in Pre Release. This deceleration of the top part of the arm will sequence the accelerated whip of the hand through release.*

**Solution PR-3c: Load to Lag**

***A full body awareness and strengthening exercise that transfers body from A to B with arm lag***

*Having the mental and physical ability to control the body will empower a pitcher to make change. In the Load to Lag drill, the focal point is on the arm lag in Pre Release that is needed for whip. Using a Softball Power Drive, the pitcher will set up in a coiled and open position. First, the pitcher will be asked to touch the glove arm knee to the glove arm elbow. Hold and balance this position for several seconds. From that position, extend the throwing arm back into Third Quarter, and take a controlled stride forward with knee bend and depth. The body will move forward as the arm lags behind for a brief moment. The arm will then stabilize against the opened body position to create a whipped, one click (or 2/60th of a second) release. This is an exercise that will not only create arm lag but will also build strength, balance and ownership of the motion.*

**Solution PR-3d: Shoulder Sequencer**

***A manual assistance drill that automatically creates the natural sequencing of a pitch***

*The Shoulder Sequencer creates the natural sequencing of the arm necessary for whip through release. From shoulder, elbow, wrist through ball, whipping requires that ordering. Standing approximately 4” from the wall, the pitcher will be in a stance that is about shoulder width apart and parallel to the wall. Be sure to do a safety check on the wall for any protrusions. The pitcher will hold a ball and place it against the wall in Third Quarter. The arm must be elastic and the posture reversed. The coach will stand directly behind the pitcher and parallel to the wall. The coach will first check for proper arm placement and elasticity. Then, she will brace the glove arm shoulder and with her other hand, apply down and in pressure to the upper arm. This will naturally move the hand and ball into the release zone without the pitcher doing any work. The Shoulder Sequencer is a drill to create the feel of the effortlessness of sequencing.*

**Common Problem PR-4: Upper arm shrugs**

**Solution PR-4a: Water Bucket Lifts**

***Replicate the feeling of the natural upper arm stabilization against the body when lifting a heavy object.***

*The movement from Third Quarter to Pre Release is a downward movement. Pitchers who have begun to rotate prior to Pre Release or who are out of alignment with the catcher will sometimes lift and tighten the shoulder to force the throw and regain control of the line. The Water Bucket Lift drill provides the grounded feeling that the pitcher will have at Pre Release.*

*To execute this drill the pitcher must set up on the power line with an athletic stance and good spacing. To hold a heavy bucket in each arm the palms will be facing away from the body, the upper arms will stabilize along the body and the shoulders will be down. After doing several 10 second sets of Water Bucket Lifts, set the buckets down and pitch from Foot Touch position. Try to duplicate the alignment, posture, spacing and strength of the Bucket Lift through release of the pitch.*

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**Are the hand and the ball lagging behind the elbow?**

**Common Problem PR-5: Arm is locked with hand position on top of ball**

**Solution PR-5a: Bungee Pull From Behind**

***Creates the feeling of arm lag, promotes the correct hand placement and the challenges physicality of the body.***

*The Bungee Pull is a drill that shows the proper placement of the arm and ball lag behind the elbow in Pre Release. It is also a “feel” drill as it engages the focus group of muscles necessary for this position. The pitcher will set up on the power line holding one end of a bungee in her throwing hand. The coach will stand directly behind her and in line with second base. The pitcher will place her arm in the proper Pre Release position where the upper arm is stabilized against the body, the ball and hand are lagged behind the elbow, the hips are open, there is good spacing and the front leg is firmly flexed. Once this position is established, the coach will apply a slow and consistent pull with the bungee. The challenge for the pitcher will be to keep the upper arm stabilized against the body for a 5 second count. The pull of the bungee keeps the lag in the arm while the entire body must stay engaged with a positive intent to hold that position. The pitcher should also note the hand position is on the side during this hold. If the pitcher were to place her hand on top of the ball or bungee cord handle, the upper arm would immediately come away from the body.*

**Solution PR-5b: Horizontal 4x6 Holds**

***Sets a physical barrier which promotes a timely release just after the hand passes by throwing leg.***

*The Horizontal 4x6 Hold is a drill that gives an absolute deadline to the timing of release. The pitcher stands on her power line and holds a 4”x6”x3’ board horizontally with her glove hand at her waist. Without the ball and at a slow and controlled rate of speed, she starts her circle and begins to stride. At Foot Touch, the body must be in reverse posture. During Third Quarter, the pitcher must get deep in her legs and then at Pre Release, there should be a lag in the ball and hand. From Pre Release, one “click” later (or 2/60 of a second later) the release must happen. The Horizontal 4x6 Hold inspires consideration of a timely release because otherwise the pitcher will hit the board with her hand. It is very important to practice this drill at a controlled rate of speed.*

**Solution PR-5c: Hammer Drill**

***Practicing a hammer strike reinforces hand position, ball lag and elbow lead.***

*To effectively drive a nail into a board, there are some important tips about how to use a hammer. First, use the full length of the hammer. The added leverage will be a benefit as it will allow the weight of the hammer to do the work. This is much like using the full length of an arm and allowing the weight at the end of it to do the work. Next, hold the hammer in a handshake position. This will enable a full range of motion in the wrist. This is similar to the ball hold position in Pre Release that will also enable a wide range of motion in the pitcher’s wrist. And finally, relax and swing from the elbow.*

*In a good hammer strike, the elbow leads the energy into the wrist and the wrist throws the energy into the head of the hammer. This is same process in the sequencing of the pitch. To practice a hammer strike that resembles a pitch, hold a vertical 4”x6”x3’ piece of lumber in the center of the pitcher’s body. Hold the end of a hammer in a handshake position and pull back to just before entry to Pre Release position. Then feel the elbow lead and the hammer head release to strike the board.*

**Solution PR-5d: Wrapped Up – Pre Release**

***Stabilized the upper body to isolate the Pre Release of the motion.***

*To completely isolate and train the Pre Release to Release phase of the motion, the upper arm must remain stabilized against the body. To accomplish this, the pitcher’s upper body will be wrapped with flexi-wrap (a Saran wrap-like material that is used to by trainers to attach ice to athletes). Set the pitcher in an open posture with the throwing arm and glove arm in a Pre Release position that should have symmetrical resemblance. Wrap the upper arms tightly. Place ball in the pitcher’s throwing hand. Ask the pitcher to release the ball to a target that is approximately 10 feet away. The pitcher must use a solid positive move as well as lag her arm into a one-click release to be able complete this drill successfully.*

**Solution PR-5e: Hit/Pitch – Pre Release Arm Lag**

***Relating pitching and hitting in the Pre Release/Connection phase.***

*There is great commonality between a pitch and a swing. In pitching, Pre Release can be compared to Connection in hitting. In both Pre Release and Connection, the stride leg is firmly flexed as it resists the momentum that is built up behind it. 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 while the upper arm rapidly decelerates as it becomes stabilized along the body. And in both Pre Release and Connection, there is lag behind the elbow. Working on pitching and hitting skills and relating components of each skill to the other might allow a more broad athletic understanding and possibly a greater success rate. Review a pitch and a swing in this Pre Release/Connection phase to assess if they share the same posturing and characteristics of the Pro Models.*



**Solution PR-5f: Hit Hit Release**

***Maps the path of the hand and ball lag prior to the release of the pitch.***

*Proper hand position is critical for good sequencing in the Pre Release to Release phase. The Hit Hit Release drill maps the path of the hand and ball lag prior to release of the pitch. The pitcher will stand in her open position and hang her throwing arm loosely and independently on the power line behind her. Her hips should be open, the stance at a comfortable shoulder width apart, her knees flexed and her weight slightly back on the throwing leg. She will naturally lift and let the side of her hand hit the side of her leg, gently lift again and hit once more and then on the third lift, allow the downswing to pass by the leg to allow the angle to release and the ball to be throw in one click or 2/60th of a second. Successful repetition of this drill will promote correct hand positioning and a strong angle as the pitcher approaches Release.*

**Solution PR-5g: Hit Hit Release Wrist Sequencer**

***Coach manually creates the correct path of the hand and ball lag prior to the release of the pitch.***

*Proper hand position is critical for good sequencing in the Pre Release to Release phase. The Hit Hit Release drill maps the path of the hand and ball lag prior to release of the pitch. The pitcher will stand in her open position and hang her throwing arm loosely and independently on the power line behind her. Her hips should be open, the stance at a comfortable shoulder width apart, her knees flexed and her weight slightly back on the throwing leg. The coach will stand behind her. For instructional purposes, let’s assume the coach is training a right handed pitcher. Placing her left hand on the throwing shoulder, the coach will stretch that shoulder back against her forearm. The coach, with her right hand will hold the pitcher’s wrist. She will make the first two hits against the leg and throw the pitcher’s hand down and through the zone on the third beat. The coach will stabilize the pitcher’s throwing shoulder so that the pitcher feels a timely and independent whip. This should be first trained without the ball and then add the ball after successful repetition.*

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**Is the stride leg still firmly flexed as it resisted the momentum that is built up behind it?**

**Common Problem PR-6: Stride leg is locked**

**Solution PR-6a: 5% Overhand/Underhand Throws – Firm Flex Front Side**

***Creates awareness and control of the glove leg in 5% speed while relating the overhand to underhand throws.***

*When training in 5% percent movement speed, the pitcher must become more aware of her body to be able to control each point of the motion. This is an invaluable training tool because awareness and control helps to build a pitcher who can make adjustments quickly. In this drill, the pitcher is asked to alternate both overhand and underhand throws in 5% speed. This will initially take some additional training time to be able to tune in to the control needed for both of these throws.*

*Once control and focus is achieved, let’s tune into a more specific area. The pitcher will be asked to feel the glove leg, from foot touch through release. More specifically, focus on staying deep in the front side with the hips remaining open. And just prior to release, is that glove leg strong and firmly flexed, or has is locked too early? Comparing and contrasting the pitch to the overhand throw will bring attention to an area that so important to posturing correctly for either throw. And because there is great similarity between the overhand and underhand alignment, posture and spacing, the pitcher can make positive adjustments as she relates both skills in this drill.*

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**Are the hips open and is there still good spacing with shoulders over toes?**

**Common Problem PR-7: Rotation occurred too early**

**Solution PR-7a: Rock Skip**

***The posture, spacing and sequencing of a rock skip resembles that of a pitch.***

*The methods used to skip a rock on water are very similar to pitching fundamentals. To skip a rock, set in a strong athletic stance that is lined up in the direction to which you want to throw the rock. Be certain that the hips are open and that there is good spacing with shoulders over the toes. It is very important to bend the knees to get close to the water so that the rock will be almost parallel with the surface of the water upon release. Place most of your weight on your back foot and to throw, transfer the weight forward as you bring your arm forward. As your elbow moves to the back hip, release the rock with sharp wrist movement to create a horizontal spin. The posture, spacing and sequencing of a rock skip resembles that of a pitch. Practicing skill sets in activities outside of pitching can expand the pitcher’s body awareness.*

**Solution PR-7b: Frisbee Throws - Backhand**

***Pitching challenge: Learn a Backhand Frisbee Throw with your glove arm and relate it to how the hips should be open with good spacing during the Pre Release phase.***

*We can learn so much from the movements of other sports and apply that knowledge to pitching. In this drill, we examine the Backhand Frisbee Throw. The website* [*www.ultimatehandbook.com*](http://www.ultimatehandbook.com) *illustrates the proper mechanics of a Frisbee throw. It highlights several important things: first, bending the knees and keeping good spacing; next, shifting the body weight forward; and finally, following through to your target.*

*A challenging pitching exercise would be to learn how to do a Backhand Frisbee Throw with the glove hand. Then list all of the commonalities between the body posturing and linear movement of that Frisbee throw and those of the pitch in the Pre Prelease phase. Focus on how the hips must stay open and good spacing must be in place for the throw to be successful. Early rotation cannot occur when throwing the frisbee or during the pitch.*

*The following information is provided on the* [*www.ultimatehandbook.com*](http://www.ultimatehandbook.com) *website:*

*Spread your feet about hip width apart, so that you have a more stable platform from which to throw. Flex your knees slightly, so that your body is not rigid. Bring your arm backwards, so that the disc is next to your rear leg and you feel your weight shift slightly back. Remember, the force in this throw comes not only through arm strength, but from your weight (and body mass) shifting forward as well. As you bring your arm forward, shift your weight forward and take a slight step ahead with your front foot. This will add force to the throw, so that your arm doesn't have to do all the work. As you release the disc, snap your wrist forward, so that the disc "jumps" off the side of your first finger. This will impart spin to the disc, and stabilize it in flight. The harder you snap the wrist, the more spin the disc gains and the better the throw will be. Continue your arm motion after the disc jumps off your finger. Known as "following through", this will help direct the disc towards its target.*

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**Has the diagonal drag of the throwing foot begun?**

**Common Problem PR-8: Excessive and heavy drag**

**Solution PR-8a: Shoeless Throwing Foot**

***Removing the throwing foot shoe creates awareness its role as a driving not braking force.***

*The Shoeless Throwing Foot drill creates stronger awareness of the push foot. This will help the pitcher determine if she is driving off of the mound, maintaining legality by keeping contact with the ground and most importantly allowing a freely releasing diagonal drag to complete the pitch. If the throwing foot is used incorrectly, the pitcher will feel limited drive from the mound, a break in contact from the ground or a heavy and excessive drag that will slow down the momentum of the pitch. Taking the shoe off enhances the ability to feel the foot and therefore will empower the pitcher to make necessary changes more quickly. There is immediate feedback if the drag is excessive and heavy. Pitchers tend to respond and adjust to this feedback very quickly and soon the throwing foot has a free and clear diagonal drag.*

**Common Problem PR-9: Pitcher kicking/dragging off course behind body**

**Solution PR-9a: Kick The Bucket**

***Place a bucket in a no kick/no drag zone. If pitcher kicks the bucket, she will receive feedback that power is off course.***

*When a pitcher arrives at the Pre Release phase, she has already driven off of the mound, established a positive move that is aligned with the target, maintained legality by keeping contact with the ground and is now ready to freely release a diagonal drag to complete the pitch. However, if along the way the pitcher excessively kicks or drags off course of the line of force, power will be lost. A misguided leg drive will detract from that moment of addition at release. The Kick The Bucket drill gives a physical cue if the pitcher is kicking or dragging too far off course. The bucket is placed just outside the 24” lane and at about 2/3 of the full stride length. The pitcher will kick the bucket if she if driving off course.**She will receive instant feedback if the movement is incorrect or will feel a clear passage if her power was driven to the target.*

**Solution PR-9b: The Clothes Line**

***A rope provides a physical cue for the pitcher to stay on course with the stride and throwing leg drive.***

*For pitchers who struggle to stay on a powerful course of movement throughout the pitch, the Clothes Line drill will create awareness of a straight line drive and good spacing. This drill will require two batting tees and approximately 10 feet of rope. At the lowest height setting, place one tee behind the mound and the other tee approximately 9 feet in front of the mound. Both tees are placed on the power line and connected with a clothesline rope that is pulled tightly and tied off. The pitcher will stand with one foot on each side of the rope that is set at knee height. If the pitcher has an aligned stride and a drag that stays on course, there will be no play in the rope. If the pitchers steps across the power line or drags and kicks off-line, the pitcher will immediately feel the impact against the rope.*