## Very Bad Traditional Pitching Teachings NOCA Baseball

Here are some examples of traditional verbiage used to teach pitching. All have real problems and can lead to under-performance and even injury.

1). Stop at the Top. This typically means the pitcher lifts his leg and literally stops at he top of the Knee Lift. This destroys kineticism, decreases hip/shoulder separation, kills tempo which in turn kills the timing of the Arm Swing, and actually activates a different muscle firing pattern. Don't use it to teach balance, as there's a few hundred more exercises better for teaching balance. Bob Feller and Sandy Koufax never "stopping at the top." Nor does any other MLB pitcher in our database.

Getting your hip out in a rhythmic movement and this begins the **Compound Pendulum Effect.** The compound pendulum effect occurs when you have two or more masses connected in such a way as to rotate around a central axis such that momentum is transferred from one mass to the next. Go google **Paul Nyman** to see more on this topic.

- 2). Stand Tall, Crouch/Crunch, Rock Back, or anything else that forces a postured position. Each player is different and will require a customized posture to archive his endpoint goal. It's impossible to determine the optimal posture for a player without first being evaluated by a Medical Professional. This is precisely why NOCA Baseball utilizes an Orthopedic Referral Network.
- 3). Tuck Your Glove. Completely and utterly incorrect if you believe "tucking' is driving the elbow backwards. Now, Tucking as defined by having your elbows come back towards the spine, is completely different. There's just not one Big Leaguer that actually "tucks" his glove backwards. Tucking Backwards not only disconnects the kinetic chain, but also limits length/reach/extension of a pitcher. This typically causes flared scaps and medial elbow pain. It also destroys Limb Symmetry. Most experts teach "Chest to Glove" as illustrated below.



**4).** Tall & Fall, Drop & Drive. Again, not all linear patterns work for all persons. Using an inefficient and unrepeatable linear pattern will cause severe breakdowns during the Deceleration Pattern. Basically, you're forcing a square peg through around hole by forcing either of these techniques.

Watch Andy Pettite below. He enacts rotation on a Sagittal Plane (north/south). **NOCA Baseball** specializes in customizing linear patterns to each player. *Do you know which method works best for you?* 

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**5). Stride Longer, Stride Shorter.** Again, this forces a linear movement. Proponents of longer strides claim more velocity or more extension. That is only correct if the Kinetic Stacking is times perfectly and repeatable. Proponents of Stride Shorter claim an easier ability for a pitcher to "get over his front side." Although the front side may certainly attain this endpoint, it may be a False-Positive.

Stride Length is only to be taught by the player to himself. That way he can time his Arm Swing to his Stride Length, enable a Kinetic Stacking, and consistently repeat it.

6). Get Your Arm Back. There is no correlation between the length of Arm Swing to the ending Velocity, period. Again, the Arm Swing is a timing mechanism to load the Scapula and connect within the entire kinetic movement. There are many links in the kinetic chain that occur between the Arm Swing and Ball Release. Focusing on the Arm Swing potentially overloads an earlier movement and raises a risk for kinetic disconnect and injury.

The pitcher below, an All-American from Florida State, finally broke down and underwent Tommy John Surgery in 2013. Notice how far back he takes his arm?



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- 7). **Push**. Forcing an overload on the linear phase or in the beginning of a kinetic movement only makes hit harder for the movements that follow to accept this load and this transfer it to an object (the ball). Again, there are multiple links in the kinetic chain between "push off" to ball release. Please don't overload a prior movement and expect an efficient energy transfer. Some players will need to be told to "push" from the rubber. Some players will need to encouraged to "reach" from the rubber. Which one are you?
- **8). Take a Bow**. The torso continues to rotate, not "bow" to the catcher. This tends to promote arm drag and cuts off true extension. Stay on plane and stay in pattern. This is called The Rotational Momentum Throwing Plane.

**NOCA Baseball** has a series of drills to teach this movement with Hula Hoops, Medicine Balls, Slings, and Weighted Balls.

9). Get a Bigger Leg Kick. This was made famous because Nolan Ryan claimed it was his source of gathering velocity. And it absolutely was for Nolan Ryan because he could time it to capture the momentum he built up. But for all pitchers, the leg kick is and always will be a timing mechanism, period. As the leg raises, it gives time for the pelvis to drift or shift to Homeplate. Some pitchers have very condensed timing, some have exaggerated and longer timing. A bigger kick may help one guy but destroy another. Do you know which works best for you?

We hope this helps and educates. **NOCA Baseball** utilizes the foremost advances in technology and data to help each player determine his best path. Our **Orthopedic Referral Network** and utilization of **Big Easy Sportsplex** provides patrons with every base covered.