

Windup vs. Stretch by John Pinkman

This is the first of a series of articles intended to help amateur pitchers develop greater accuracy and overall effectiveness. Before we discuss pitching mechanics and ways to improve your delivery, we're going to discuss style.

Which is more effective—the stretch or the windup? From which position can a pitcher throw with greater speed or accuracy? When asked this question, many people answer “Windup.” But there is no physiological or mechanical rationale to support this opinion.

I've been teaching pitching for quite a few years. At our school in Virginia, Pinkman Pitching, during every first lesson we digitally video and analyze the pitcher's motion. Almost all start with the windup. Over the years we have seen quite a few individual styles, some quite unique. When we ask our clients, “Why do you use that particular motion?” invariably the answer is, “I don't know.”

“Well then, did someone teach you that motion?”

“No” timidly slips from the lips. More often than not, our student has received a potpourri of instruction through the years from a number of well-meaning sources. So why do they pitch from the windup? I believe there are several reasons.

1. Visual imitation I believe that most pitchers, especially older ones, have learned how to pitch by watching an assortment of old movies or televised pro games in their youth. Pitchers had a vision or fantasy about how they should look. It was a graceful, elaborate motion, almost a dance. To borrow a 40's expression, it was glamorous. It was everything but efficient.

In the past, pitcher training was simply visual imitation. If they did receive formal training, it was generally given by coaches who learned by watching the same movies or pro pitchers. Many coaches, then and now, teach the way they thought they

pitched. They try to teach what worked for them at the end of their playing days. I don't say this judgmentally, but rather to come to grips with how pitchers have learned how to throw. Think back to your personal experience. Did you ever have a throwing coach?

2. Belief that windup equals velocity

Most pitchers (who are not professionally trained) believe that they can throw faster and more effectively from the windup. Not true! According to the American Sports Medicine Institute, the process of creating velocity begins when the stride foot lands. Arm speed creates ball speed; the body controls accuracy and sustains velocity or endurance.

If pitching from the windup automatically added velocity, why would closers and set-up men, the fastest pitchers in the pro game, pitch from the stretch all the time?

Pitchers who believe they throw faster from the windup do

so because of incorrect conventional wisdom and old comfortable habits. It's all in their heads. However, a pitcher who convinces himself that he is much better from the windup runs the risk of falling apart when forced to go to the stretch because a runner reaches first. He literally becomes a less effective pitcher because he believes he is.

The Shrinking Windup

Every 25 years or so, a major part of the pitching motion has been eliminated, simplifying the windup. Old films show a pitching motion that involved a full rotation of the arm at the shoulder in several circular patterns (probably where the term windup started), similar to winding up a child's toy in the days before batteries.

Prior to World War II, that involved motion was reduced to a double pump; the hands went back and forth in front of the chest and by the hips. On the third pump the hands ended up over and behind the head. In the 50's, the

The Windup

In 1A the pitcher begins the windup facing home plate. To get into position to begin his delivery to the plate, he must rotate his body 90 degrees. His plant foot, which started off facing home plate, must be completely “opened up” until it faces third base [1B-1C]. As his plant foot opens, he raises his elbows above his head and rocks back. Next, he must raise his other leg and pivot away from the plate on his plant foot until a line from his front shoulder to his back shoulder will intersect home plate [1D]. Finally aligned properly, he can begin to launch himself toward the plate. Compare this complicated maneuver to the simplicity of the stretch [2A-2B].



pumps were pared back to one, then, hands over head. In the mid 60's the pump was almost entirely eliminated, with some still using a mini-pump. The hands still ended up over and behind the head.

Today, the majority of those who still lift their hands over their head generally do it incorrectly and totally out of sequence. Inspired by Maddox or Pettitte, most who try to imitate this motion raise their stride leg while their hands drop and separate, causing the hand to collide with the leg and subsequently stop the hand motion entirely for a split second. So much for the momentum theory! Maddox and Pettitte both lift their hands over their heads, but their hands come down and break at the same moment that the lift leg goes down into the stride. It is smooth, uninterrupted, and in the same direction.

So why was all that motion in the windup to begin with? It is slowly changing, but baseball has always been a game dominated by intuition and gut feelings as opposed to scientific fact. Motion

has always been confused with momentum, believed to be a critical component in the creation of velocity. This excessive motion was gradually eliminated from the windup because the frequent stopping, starting and changing of direction and angles resulted in three really bad things—poor balance, improper timing and fatigue.

If you are not throwing 60 percent strikes in games, you most likely have a balance, sequence (timing) or posture problem, not an arm problem. As far as I am concerned, there is little or no benefit for adults to use any form of windup, or for an experienced pitcher to use a mini-windup similar to Prior or Clemens. These days the windup has been pared down to: hands in front of chest just below the face and little or no rocker step. Why? More motion equals more mistakes. Critical balance mistakes that occur early in the pitching motion create several biomechanical problems. These, in turn, lead to loss of velocity and loss of control. Velocity is what

everyone wants; control is what everyone needs.

What does all this mean for the amateur player? I believe that for an amateur player, pitching from the stretch is a better option for five reasons:

1. **Less movement means fewer mistakes.** The more you complicate your delivery, the more likely you are to throw yourself out of synch. Unless there is a compelling reason to complicate an athletic movement, keep it simple.

2. **It's easier.** Amateur pitchers practice less and receive little instruction. Another reason why simpler is better.

3. **The stretch entails much less foot work than the windup.** The windup, though it has become simpler over the years, still involves an intricate, stylized 90 degree turn. As the pitcher rocks back and lifts his elbows above his head, he also repositions his plant foot, which had been perpendicular to the rubber [See Figures 1A and 1B]. By awkwardly opening the plant foot and placing it parallel to and in front of the rubber, the pitcher begins his delivery in an unnecessarily precarious position. Next, he must raise his stride leg and pivot away from the plate on his plant foot until a line from his front shoulder to his back shoulder will intersect home plate. Finally aligned properly, he can begin to launch himself toward the plate.

Compare the opening movements of the windup to the super-efficient one-two of the stretch [see Figures 2A and 2B]. Already in position to begin his delivery, all the pitcher does is lift his front leg and drive forward. Aside from being quicker, simpler and easier, the stretch avoids the awkward, intricate 90-degree turn "dance" step of the windup, a major benefit considering the less than perfect mound conditions in many amateur ballparks.

4. **It's less tiring.** Try lifting your hands over head sixty times; that's the cumulative effect of pitching from a windup for a few innings. With increasing fatigue comes a decline in mechanical efficiency.

5. **Greater accuracy.** Less early motion results in fewer mistakes during the latter stages of the delivery. A less complicated motion, the stretch, provides fewer chances for the pitcher to get out of balance or out of synch. As accuracy improves, a pitcher gains confidence and actually begins to throw harder.

Other Point of View

This theory has another side. In a recent conversation, Mike Epstein told me that Ted Williams thought that a pitcher's delivery accounted for 50 percent of his prowess. Peculiar styles do work—sometimes—in the pros. A stylized, intricate delivery can confuse a hitter and make it more difficult for him to concentrate on the ball and pick up the pitcher's release point. Koufax, Spahn and Marichal, to name three great pitchers, used high, stylish leg kicks to great effect. But these guys were great professional pitchers and extraordinarily talented athletes. They could throw strikes in spite of the difficulties imposed by their styles. That's the key. Amateur players who imitate extreme styles usually fail miserably. □

The Stretch

In 2A, the pitcher brings his hands together in front of his chest. His whole body is at 90 degrees to home plate. A line from his back shoulder through his front shoulder will intersect home plate. To begin his delivery, he simply raises his front leg and prepares to push off his plant foot.



About Our Contributor

A regular contributor to Collegiate Baseball News, John Pinkman is a nationally recognized leader in the field of pitching instruction. His clear language and common-sense approach to pitching instruction have earned him the admiration of some of the best minds in baseball. According to Tom House, "It's obvious that John has taught his students the pitching skills that we require in professional baseball. John is a dedicated student of the game as well as an excellent teacher." John's instructional facility is located in the Washington, DC area. Designed for serious players, is a bright, safe indoor environment that meets the demands of elite teams, professional instructors or father and son workouts. The facility is available to rent seven days a week. Early morning and late night hours are available.

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