

JUMP SHOT THEORY: THE OLD VS THE NEW

By Robert Tilitz

The old but still prevailing jump shot theory does not have a name. Because its major components are the elbow-in shooting position, the forearm stroke and the wrist snap, I call it the elbow-in-strokesnap jump shot theory. My new jump shot theory reflects my analyses of the greatest jumpshooters in NBA history and their jump shots. For reasons that will become evident, I call the whole-body jump shot theory. Both theories will be evaluated in terms of how well they work off the dribble at mid-range with primary focus on the strongside pull-up jump shot, which, when well executed, is by far the best attack jump shot. Because pulling up off strongside moves and run-ups requires a jump shot with a high level of athleticism and power, those are the main criteria by which the two jump shot theories will be judged.

The shooting stance/position is where the comparison of the old and the new jump shot theories will begin. The elbow-in strokesnap jump shot's shooting position is designed for the control of direction. For precision, the elbow-in shooting position points the shooting elbow at the basket. But the aligned-with-the-basket elbow-in shooting position sets up too far out front, which disconnects the strokesnap release from the jumpshooter's body. The elbow-in shooting position also sets up at right angles to the squared-to-the-basket shoulders, which locks in the direction of the jump shot but also, in combination with an external rotation of the shooting hand that is required to locate it behind or underneath the basketball, thoroughly stiffens the elbow-in-strokesnap jump shot. The out front, right-angled construction of the elbow-in shooting position effectively removes the body's athleticism and power from the elbow-in-strokesnap jump shot and replaces it with locked-in stiffness and weakness. Therefore it is fair to say that the elbow-in-strokesnap jump shot's athleticism and power get off to a poor start.

The whole-body shooting stance/position varies with the several different whole-body jump shots. The two foremost are the whole-body elbow-out jump shot, which specializes in strongside forward and moderately angled strongside lateral pull-ups, and the whole-body reachback jump shot, which specializes in strongside lateral pull-ups at moderate and extreme angles. The elbow-out and the reachback whole-body jump shots have different shooting positions, but both are designed for athleticism and power. The shooting position for both whole-body jump shots locates the start of the release forehead-high or higher and within the scope of the body, either close in front for the elbow-out or farther back for the reachback. Either way, the locations of the whole-body shooting positions advance athleticism and power. The whole-body shooting position advances athleticism because the arm action that raises the basketball to the whole-body forehead-high-or-higher shooting positions helps to power the jump of the jump shot and because locating the shooting position within the scope of the body streamlines the shooting stance. The whole-body shooting position advances power because a close-to-the-body or farther back start of the release allows for a full extension of the shooting arm. In addition, the close-in-front or farther back whole-body shooting positions automatically roll the shooting shoulder back for power and to channel, via forward rotation of the shooting shoulder during the release, the athleticism and power of the jump into the release.

Next comes the release of the jump shot. The elbow-in strokesnap jump shot's release mainly consists of only a forearm stroke and a wrist snap, which are relatively small and weak power production techniques. Consequently, the strokesnap release has poor power and related control problems. The poor power of the strokesnap release often results in overall control problems

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because attempts to compensate for the weak release with greater exertion lead to excessive effort that frequently disrupts shooting mechanics and shooting form.

The strokesnap release causes other problems too. Initiating the strokesnap release from a pointed-at-the-basket, right-angled elbow-in shooting position is OK for accuracy on stationary standing-start shots, but an impediment when trying to shoot off-the dribble strongside pull-up jump shots. Delegating control to the fingertips and the fingerpads of the shooting hand is an obsolete vestige of the two-hand set shot era when the release was two-handed. The fingertips and the fingerpads of one hand are too small and too weak to control the jump shot. The arcing motion of the strokesnap release unnecessarily complicates the jump shot's already challenging airborne calculus of direction and distance.

The release of whole-body jump shots is sourced from the shooting shoulder, which must first roll back to activate as a source of whole-body athleticism and whole-body power by way of engagement with the release mechanism. Then the shooting shoulder rotates forward to help power the release along with full extension of the shooting arm including a stretched-out forearm stroke. The shooting hand should lead the extension of the shooting arm straight into the arc of the jump shot. Toward the end of the straightstroke extension of the shooting arm, the shooting hand should brush the basketball to fine-tune distance and direction, to generate backspin for touch, to soften the shot by slowing its velocity and to add secondary power when needed. The forward rotation of the shooting shoulder during the whole-body release is a primary power source for the rotation of the square-in-the-air jump that many strongside pull-up jump shots require and all could use. And the forward rotation of the shooting shoulder during the whole-body release is the dynamic that channels the athleticism and the power of the jump of the jump shot into the release of the whole-body jump shots. There are structural and mechanical differences in the release of the two whole-body jump shots. Those differences account for the differences in their performance specialties.

To a great extent, the whole-body jump shots rely on the shooting hand for control. The shooting hand exercises control through its bent-back half-hand shooting grip. The initial bent-back half-hand grip sets up on top of the basketball soon after it is grabbed off the strongside dribble. The initial bent-back half-hand grip automatically evolves into the underneath bent-back half-hand shooting grip when the basketball is raised to the shooting position for the start of the release. The shooting hand controls direction for both whole-body jump shots by leading the extension of the shooting arm during the release. The shooting hand should remain bent back until near the end of the extension of the shooting arm during the release. At that point, brushing the basketball with the shooting hand, which is the whole-body jump shot theory's ultimate control technique, reverses the backward bend of the shooting hand as it fine-tunes distance and direction, generates backspin for touch, slows velocity and adds secondary power when needed.

After comparing the old but still prevailing elbow-in-strokesnap jump shot theory and my new whole-body jump shot theory two conclusions stand out. First, the whole-body jump shots are far superior because of their athleticism and power and their brushing hand action control. Second, the physical demands of pulling up off strongside moves and run-ups that the elbow-in-strokesnap jump shot cannot handle are actually beneficial to the whole-body jump shots.

JUMP SHOT HOW-TO: WHAT WORKS AND WHAT DOES NOT WORK

By Robert Tilitz

The whole-body jump shots are athletic, powerful, accurate, structurally protected and gun-turret adjustable. The whole-body jump shots are easy to learn and easy to execute because they are powered by big-muscle jump shot techniques and controlled by the shooting hand.

All of the several different whole-body jump shots are superior to the elbow-in-strokesnap jump shot, which is widely supported in the NBA. The elbow-in-strokesnap jump shot's problems start with its out-front, horizontally extended, basket-aligned and shoulders-squared-to-the-basket setup, which makes the elbow-in-strokesnap jump shot stiff and awkward. In large part because of its stiff and awkward setup, the jump and overall athleticism of the elbow-in-strokesnap jump shot is minimal. Little to no jump means little to no strongside off-the-dribble pull-up capability. That's because the strongside moves and run-ups that create separation from the defender also generate horizontal momentum that must be harnessed. That's a very much unrecognized job of the jump of the jump shot, which, besides elevating the release, should harness the preceding horizontal momentum by redirecting it upward. Little to no jump means needing to slow down to manage separation momentum, defeating its purpose.

The elbow-in-strokesnap jump shot has release problems too. For example, the strokesnap release consists of only a forearm stroke and a wrist snap, so it is starved for power and, as a result, often overworked and difficult to control. Furthermore, the direction of the strokesnap release is difficult to adjust because the basket-aligned shooting elbow and the squared-to-the-basket shoulders setup form an inflexible right-angle construction. The resulting inability to make the adjustments that action jump shots inevitably require has surely contributed to the mass migration of elbow-in-strokesnap shooters to stationary, standing-start 3-point land.

By contrast, the whole-body techniques athleticize the jump shot. First, the arm action that raises the basketball to the shooting position for the start of the release also helps to power the jump of the jump shot. Second, because of whole-body jump shot's the close-to or over the body shooting positions, the shooting shoulder automatically rolls back to activate as source of whole-body athleticism and whole-body power via engagement with the release mechanism. Third, the forward rotation of the shooting shoulder during the release merges the jump with the release by channeling the athleticism and the power of the jump into the release. Fourth, the forward rotation of the shooting shoulder during the release largely powers the rotation of the square-in-the-air jump that many strongside pull-up jump shots require and all could use.

For power, the whole-body release techniques consist of forward rotation of the shooting shoulder, along with a full extension of the shooting arm including a stretched-out forearm stroke. The whole-body jump shots also rely on supplemental power production techniques derived from either the jump or subsequent body leverage. The resulting abundant power makes whole-body jump shots easy to shoot and therefore easy to control. The forward rotation of the shooting shoulder during the release also plays a big part in gun-turret adjustability.

The whole-body jump shots put the shooting hand in control of the jump shot. The shooting hand controls direction by leading the extension of the shooting arm straight into the arc of the jump shot and toward the basket. The shooting hand starts the release from an underneath half-hand shooting grip. The shooting hand should be bent back during most of the extension of the shooting arm. Near the end of the extension of the shooting arm, the shooting hand should brush

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the basketball in order to fine-tune distance and direction, generate backspin for touch, soften the shot by slowing its velocity and add secondary power when needed. The brushing hand action by the shooting hand looks like a super smooth wrist snap, but it is actually the whole-body jump shot theory's replacement for the wrist snap.

There are two types of full-scale shooting-shoulder-centric whole-body jump shots. One is the forward-oriented elbow-out jump shot with a straight-up or forward jump (e.g., Bernard King and Reggie Miller). Setting up the shooting grip with the shooting hand angled in automatically angles the shooting elbow out. The elbow-out jump shot's release starts from a forehead-high or higher, close-in-front shooting position. Setting up the shooting position with the shooting elbow angled out automatically rolls the shooting shoulder back. The elbow-out jump shot's release is an on-the-rise, one-motion, no-reachback straightstroke-push.

The other full-scale shooting-shoulder-centric whole-body jump shot is the laterally-oriented reachback jump shot with a fallaway jump. The reachback jump shot's shooting position sets up forehead-high or higher and one hand length back past the front of the head. The reachback automatically rolls the shooting shoulder back, which allows the shooting elbow to angle either in (e.g., Michael Jordan and Kobe Bryant) or out (e.g., Tim Hardaway and Michael Redd). The reachback generates backward momentum that partly powers a fallaway jump. The reachback also bends the upper body back at the waist as the legs angle forward for balance. The reachback release in combination with body leverage reverses the fallaway jump, pulls the upper body forward and returns the legs underneath the body for a safe landing. The reachback jump shot's release is a top-of-the-jump, leveraged straightstroke-pull.

When the shooting grip for the whole-body jump shot sets up with the shooting hand angled in, which angles the shooting elbow out, the subsequent hand action that brushes the basketball has a neatly balanced precision. At the moment of release, the inherently uneven middle finger and ring finger of the shooting hand line up with their fingertips and fingerpads parallel to the ground and equidistant from the basket. As a result, the ends of the middle finger and the ring finger are positioned to become the shooting hand's built-in and precisely gauged sight and range finder.

When the shooting grip for the whole-body jump shot sets up with the shooting hand aligned with the basket, which angles the shooting elbow in, the subsequent hand action is also aligned with the basket. The aligned hand action uses one finger or a combination of fingers as primary runners or rails to brush the basketball and to guide it toward the basket. The recommendation here is the middle finger and the ring finger together (e.g., Larry Bird and Chuck Person) because they form a sturdy, centrally located combination.

Besides being the best overall jump shots, the whole-body jump shots are also a perfect fit for strongside pull-ups. That's because the forward rotation of the shooting shoulder partly powers the release and largely powers the rotation of the square-in-the-air jump. With the ability to square in the air after an action stop, whole-body jumpshooters can run into the strongside pull-up intent on beating the defender, not on slowing down to square up on the ground. Although the whole-body jump shots excel at all weakside jump shots, their most important ability by far is the ability to attack with the strongside pull-up jump shot.