

The Oldfield Spin

In this study, I will explain my concept of the rotational style of shot putting. These technical aspirations were developed from my total experience as a shot putter. My technique can be broken down into five phases:

1. Starting Position
2. Linear "Sprint" Phase
3. Nirvana Phase
4. Vertical "Jump" Phase
5. Reverse/Reentry Phase

The method of throwing described here is a result of many years of practice and throws taken beyond eighty feet. It is from this comparison, when all factors were utilized that my longest competitive throws resulted.

The Starting Position

The starting position for rotational shot putting is accomplished by sitting low at the back of the circle, facing one hundred-eighty degrees from the landing area. The feet are shoulder width apart, the knees are bent at about ninety degrees and your weight is distributed up on the balls of your feet. The back is straight and your center of gravity should be slightly turned out (similar to the front squat). The arms are held back with both elbows at ninety degrees (perpendicular to the spine and back), adding a big chest to the position. The shot is held high behind the ear at the base of the skull. The center of gravity of the shot rests just below the apex of the fingers of the throwing hand with the thumb pointing up. The shot will have a natural tendency to roll toward the fingers when thrown. The left arm is also held up and back with the elbow bent and thumb pointing upwards. The head is held back and the eyes are kept level throughout the throw (at no time should you look down). Balance and direction are key factors to throwing far and will greatly reduce dizziness and inefficient or extraneous movement that inhibit distance. A quick test of one's starting position and balance is to turn and look over the shoulder of the throwing arm into the landing area. At this point the athlete can gain the perspective needed to line up their spine toward the direction or focal point of the throw. Remember this: in the rotation style, the starting position is basically the power position, and you must be under and in front of the shot, at the back of, in the center of, and at the front of the circle.



The Linear “Sprint” Phase

This phase, sometimes called the horizontal pathway, is where the momentum is added to the starting position by sprinting low down through the center of the circle to the toe board. First, the weight is shifted to the balls of the left foot (for a right-handed person) which pivots one hundred-eighty degrees. The right leg circumvents the pivoting left and becomes the lead leg sprinting into the center of the circle. The right foot is pre-turned to get a head start on the three hundred-sixty degree pivot which takes place in the center of the circle. The spring step should resemble a lunge to regain contact with the ground as soon as possible, while keeping low and parallel to the ground. The first step to the center of the circle is accomplished best if the knees almost touch as the right leg passes the left. If the right leg gets too wide out of the back of the circle, more time and power will be lost to rotational motion and can cause over rotation at the front of the circle. The key to the linear approach is the backward seven with tight turning axis. The footwork, center of gravity, and the pathway of the shot all line up on this reverse seven. The left foot slide to the double leg support at the board is achieved by staying low. It is important that the center of gravity stays at a constant depth without vertical variation and the foot work is done close to the ground. Try to decrease heel kicking, single leg support time and air time. These are signs that you need to be lower, maintain contact with the ground longer and enhance acceleration. The momentum will then start at the feet and spiral up through the power position (separation torque is reasserted at this point). Remember not to duck your head as this will eliminate your pulling power and change momentum into a pushing force which is not as powerful and greatly increases the possibility of fouling.

The Nirvana Phase

I named this concept after the Hindu concept that says when Nirvana is reached, there is an extinction from the individual existence. This seldom mentioned, often misunderstood position is most significant to the outcome of the throw and the recovery after the throw because it combines all energies going into the pivot, gains power and directs momentum up through the release. These energies are described as planes of power and all line up the musculoskeletal performance as the impulse step ignites. These power phases are: (1) **Rotational** – This phase consists of two turns, the first of which is one hundred-eighty degrees and centrifugal. The second turn is centripetal and three hundred-sixty degrees which results in a total rotation of five hundred-forty degrees. Each turn is rotational in nature, directing force to the axis of the turn or keeping the arms and legs in close to the body to speed up the turn. This allows the body to come out of the turn faster than it enters. (2) **Horizontal** – Horizontal force takes place after the first turn and consists of a lunging sprint step into the second pivot and the sliding of the left to the bucket. Acceleration should be added to each step taken without any lateral variation. (3) **The J Plane** – The J plane is also along the horizontal plane. It is the process of working your way down to the front of the circle to set up a Plyometric base and the double leg support at the bottom of the second pivot. (4) **Nirvana** - Nirvana is the name of the matrix where the first three power planes are combined together with the torqued upper body to keep the shoulder from drifting ahead of the hips. The body weight is under and in front of the shot as you start to helix up through the vertical plane. The power position unwinds as you develop vertically. The feet, knees and then the hip are next to come into action leaving the shoulder back and torqued. This process develops a store of energy much like an archer’s bow that is strung and ready for release.

This position is referred as the backward “C”. It is important to remember to come out of each pivot faster than you entered it, because you need to be able to get to and throw off the top of your vertical phase. Anything less than the top cuts off distance.

The Vertical Jump Phase

Positioning, balance and alignment are key factors that add distance to a throw. Proper utilization of these factors will create a more efficient throw. Acceleration and depth of position add time/power development to the velocity, angle and height of release. The horizontal speed combined with an efficient pivot at the power position must equal the vertical jump phase for maximum distance. Problem areas such as being off balance, having over or under rotation, moving too slow or too fast, or having too short or too long a step can be corrected if the center of gravity is low enough through Nirvana. The hips acts as a gyroscope and can sort out flaws before vertical acceleration begins. Body weight is distributed between the pivoting right quadriceps and by spinning the right hip ahead of the shoulder. The biceps femoris of the left leg is responsible for pulling the body weight forward and aiding in the vertical development. As the center of gravity ascends, the left arm pulls down and locks the left side of the body, accelerating or catapulting the right shoulder from its torqued position and comes into play as the final accelerator. The torque separation of the upper body is utilized by delivering the throw over the top of the left side of the body as it stands up and locks into position. If the pathway of the shot circumvents the right hip and does not come over the left leg, a flat throw with unchecked inertia can result in a foul or a less than optimal distance. There is a test for this phase as well. Picture an imaginary strap connecting from the right heel to the shot. In other words, if the shot were dropped, it would land behind the heel.

Reverse/Reentry Phase

This phase is the best understood as a result of the jump phase adequately absorbing all the proceeding energies that came out of Nirvana. When the jump is vertical and without variation it will use gravity to return to the ground via the same pathway. When both sides of the body are used to accelerate the throw, there is no division of labor. Energy needed or reserved to make the reverse can instead be added to the throw, making it unnecessary for you to supply the breaking action. Let the reverse happen naturally by using gravity to supply reentry. After all, what goes up must come down. The results of the vertical acceleration when matched equally from the horizontal acceleration will create a forty-five degree angle of release and a far throw that one day will measure over eighty feet.

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