

## **A total program for the emerging discus Thrower (Larry Judge)**

The thrower should land on the ball of the right foot in the middle of the circle  
The discus throw presents a unique challenge that can only be mastered through a combination of technical training and a regimen of strength training, jumping and stretching, and throwing.

In Part 1 last month, we covered overall core control, understanding the form, problem areas, and the mechanics of the grip, stance, beginning of the run, and the launch - bringing the thrower into the flight phase.

### **FLIGHT PHASE**

This is a non-support phase in which the thrower initiates a leg exchange that takes the left leg and foot from the back of the circle toward the front. The right hip, as the torque mechanism, leads while the right arm is relaxed as if carrying a pail of water.

During this non-contact period, the rotation continues around the vertical axis as a result of the right/left leg impulse in single support.

For the drive or the flight phase to be efficient, the athlete should not turn the left leg past ten o'clock so that he can drive off it. Prior to the flight phase, I instruct my athletes to drive off the left leg and jump an imaginary stream en route to the middle of the ring. Too much effort here may result in some balance problems.

### **THE LANDING**

The right foot should drive to the middle of the circle and land on the ball of the foot in a "controlled stumble," preparatory to its 90-degree turn. The experienced thrower will speed up the "core" and re-establish pectoral stretch by turning the right foot just before landing and staying down in the middle of the ring. This will increase the torque of the lower body.

The foot should land in the three o'clock position and the athlete should stay up on the ball of the foot throughout the next run in order to maintain hip motion and lift at delivery.

It is important to drive the left foot through to the front of the ring and to ground it as quickly as possible in a slightly open position.

There are two ways in which the thrower can do this:

1. He can use a "slash technique," keeping the knees close together and the left foot close to the surface, as he shoots it toward the front of the circle; or...
2. Use a "wheel technique" - that is, as he shoots the left foot into the power position, he kicks the left heel up to the glutes - helping him get the left leg down quicker and obtain a good position at the front.

## POWER POSITION

This is the same position from which we execute our standing throws. Both feet are now on the ground with the legs at a 90-degree angle. The knees are still bent at 45 degrees, the back is straight, and the shoulders are turned to the back of the circle, producing a separation of the shoulder and hip.

The discus should be held high throughout the horizontal, or linear, phase. The lower the turn/pivot in the middle of the circle, the higher the arms should rise in anticipation of the throw.

The knee should now lead the hip toward the throwing area, while the thrower stays low and separates the upper and lower body as much as possible in the middle of the circle.

The main task of the spin is to ensure the thrower of landing in an effective throwing base - getting the hips under the torso ready to fire. The athlete must be taught to get into the proper position as quickly and efficiently as possible.

When double support is re-established, the athlete should be on the balls of both feet, the left arm extended and in line with the right foot, and the discus at its high point at shoulder level.

## RELEASE

It is critical to keep rotating on the ball of the right foot as a continuation of the power position, in order to create hip drive in the release.

The discus should be held high in the power position and begin to descend as it follows the hip rotation.

Timing and intensity are the main ingredients in this elusive movement. The thrower must wait for the discus to reach zero to fire the cannon. If he triggers too early, he will palm the discus, drag it through a shorter path, and probably hit the right side of the cage.

As far as hip pop goes, the motto is "Better late than never." Remember, the athlete can only get about 45 degrees of hip pop or hip rotation, and if he fails to keep his right foot running and lands in the power position at 90 degrees, he'll probably be unable to get his hips around and opened.

The thrower should drive his right knee in the direction of the throw (rotate hips) and straighten the back leg (keep discus back).

The pelvis must be pointed up for an efficient hip drive. If the pelvis does not rotate up, it will create a problem with the power position. The thrower should be taught to check the angle of the pelvis, as this will tell him whether he is getting his legs into the throw.

The athlete shouldn't apply force to the implement until it is directly in front of him or at twelve o'clock. At this point, the discus will rise until it is released. The hip drive can be continued via a powerful extension of the right leg that will lift the trunk and the discus.

If the thrower cannot continue turning the right foot, he will wind up his spin at 90 degrees in the middle of the ring. This stall of the right foot will prevent the thrower from getting his hips into the throw.

The hip and left shoulder will lock at the top of the standing position, then catapult and pull the right side of the body and the discus through both the horizontal and vertical power planes - rearing a backward "c," or bow-like position, of the back.

The correct untorquing of the body will accelerate the discus and bring it up over the eyes, with the arm and spin off the finger applying the final impetus.

As the lifting action nears completion, the "block" is effected through the straightening of the front leg and the extension of the left arm early enough to create shoulder speed, followed by a dramatic pulling in of the lead arm the instant before release.

The discus will follow the path of the body into the direction of the throw. As the hips and trunk come parallel with the front of the circle, the discus will come into line with the right shoulder.

The thrower should block vigorously with the left arm to accelerate the throwing side of the body as the discus is released.

The discus is released from the fingertips at a 39 to 42-degree angle with a violent lifting action. It is important to keep the feet in contact with the ground until the discus is released so that as much force as possible can be applied to the implement. Common problem in the release: The thrower, in attempting to move rapidly out of the back of the ring, will drop his throwing arm and pull it toward his body, producing a "scooping" motion.

While this "scoop" can be very powerful if controlled, the arm must be kept away from the body out of the back of the ring. Coaching point: By keeping the arm away from the body, the thrower will increase the radius of his arm; and the longer axis will enable him to put greater angular momentum behind the discus.

## REVERSE

The follow-through, or reverse, is the final phase of the throw. It is derived from an efficient hip drive and sound technical pattern. The thrower has achieved great momentum by sprinting parallel and staying low across the circle, with both feet having been turned into the direction of the throw.

The reversal of the feet occurs after the discus is released, as a consequence of the leg lift.

In order to stay in the ring and to prevent fouling, the legs should be flexed to lower the body's center of gravity after the release. Otherwise, the thrower could spin around after the release, before planting the left leg.

Throwers should always be encouraged to stay in the ring in practice. Most of the drill work and preliminary throwing in practice is performed without the reverse emphasizing the hip drive.