

Critical Aspects of Discus Technique and Training

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Larry Judge Ph.D.

Ball State University

Muncie, IN USA

INTRODUCTION

The discus is one of the most challenging movements to master in track and field. The event combines vertical, horizontal, and rotational components with aerodynamic elements. Coupled with proper timing, the event presents a unique challenge that can only be mastered if balance is achieved. The competitive performance of the discus thrower depends on the appropriate combination of :

1. Technique work
2. Improvements in strength
3. Improvements in power
4. Improvements in flexibility

This is accomplished through a training regimen that combines:

- Olympic lifting
- Power lifting
- Bodybuilding
- Running
- Jumping
- Stretching
- Throwing

In working with discus throwers, the coach is presented with the problem of attempting to teach very large people to move with the grace of a ballet dancer and the speed of a sprinter. Herein lies one of the essential keys to successful discus throwing-balance. No matter what technical style is used, balance is paramount. The coach must establish the position of stability and strength for the athlete. But the solution does not rest in copying the technique of a current champion. The technique used by a champion may be the optimum (or, at least, near the optimum) for the person with the same physical attributes as the champion and far removed for a person less endowed or less well trained. The second factor to look at in discus throwing is developing torque. In training discus throwers to develop torque and maintain balance, certain technical problems will develop. If a part of the throw has a problem it may affect the next part of the throw and ultimately the final product. In teaching techniques to beginners, special attention should be paid to the development of the "right reflexes," as technique can only be mastered if muscle contractions can be coordinated and synchronized to produce maximum total effort relative to discus throwing. It is required that the athlete concentrates on the right movements in the back of the ring in order to master balance and achieve and maintain torque.

Session Overview

- Comparison of technical concepts.
- Commonalities in discus technique.

Discus Technical Analysis

2 Basic Technical Models

- Wilkins
- “Linear-rotary style”
- Wide sweeping right leg produces greater rotary momentum
- Powell
- “Linear style”
- Right leg is kept closer to vertical axis for faster rotation and most momentum comes from the “sprint” across the circle

What Is Important?

- Balance.
- “My only regret is that I didn’t really know what balance was until 1983.” – Wilkins.
- Bad Start = Bad Finish.
- Rhythm.
- Relaxed, easy looking throw.
- Must be able to accelerate into the release.
- Sweeeep, dah, dah., Sweeeep, right, left
- Reaching an effective power position.
- Discus back, weight on right leg, solid core.
- Proper delivery mechanics.

Big Circles & Little Circles (Turk, 2002)

- Wind up.
- Turn (Big Circle).
- Non-support phase.
- Wheel (Little Circle).
- Delivery (Big & Little Circles).

Wind Up

- Wind up.
- Right foot flat.
- Discus high, big stretch.
- Head and eyes in line with mid point of the body.

Turn –

- Weight onto the left leg (70%).
- Left arm long, arm pit over the left knee.
- Initiate the turn by turning the left foot.

- Left foot, knee, shoulder and arm “on the line.
- Right leg is led by the inside of the thigh or instep.

Non-support Phase

- Non-support phase.
- Drive right knee, get off the left leg (knees together).
- Left arm wrapped.
- Keep the discus back.
- Let the make ground contact with the foot.

Wheel - Little Circle

- Wheel (Little Circle).
- Weight on right leg.
- On the ball of the right foot (heel up), keep it turning.
- Left foot down early.
- Keep the left arm wrapped and the discus back.
- Maximum separation between hip and shoulder axis.
- No head movement!

Delivery - Big & Little Circle

- Delivery - Big & Little Circle.
- Head Back!
- Long arm (keep discus away from body).
- Accelerate the right hip (knee in).
- Block (left side) & Chase (right side).

Stand Throw

- Stay back!
- Head back.
- Turning right foot, accelerate the right side.
- Long arm.
- Block and chase.

References

Turk, M. (2002) USATF Level II Discus Presentation