Rotational Spin Shot Put: What, Why, How

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Establish A Technical Model

• Variations v. Stylistic Differences
• Four variations of the spin technique.*
  – Linear Spin
  – Wrapped Spin
  – Rotational Spin
  – Cartwheel Spin
• The coach must understand the optimum technique, the athlete’s limitations and the give and take that occurs in combining the two to find the best model.

* As identified by Young.

Rotational Spin: What?

• It’s a “twisty” technique.
• Get ahead early.
• Vertical displacement in flight phase.
• Rear tilt.
• Narrow base of support in power position.
• Emphasis of vertical lift in the delivery.
It’s a “twisty” technique.

Get ahead early.

Vertical displacement in flight phase.
Rear tilt.

Narrow base/Vertical lift.

Rotational Spin: Why?

- Long implement path.
- Increased angular velocity (Young).
- Facilitates vertical force development (Young).
- Kinetic energy.
- Rhythmic qualities.
Rotational Spin: How?

• Set up
  – Double Support
• Turn
  – 1st Single Support
• Flight Phase
  – No Support
• Transition
  – 2nd Single Support
• Delivery
  – Double Support
• Recovery

Set Up

• Postural Considerations
  – Neutral alignment of the pelvis allows the swing leg to move freely.
  – Upright posture with vertebrae stacked requires less core strength.
  – Inclined torso can increase the implement’s path.
• Static Start or Wind Up
  – Static start facilitates balance but it requires greater core strength and isn’t rhythmical.
  – Wind up start increases the implements path but it may complicate the entry mechanics.
Posture

• Stress posture, balance and control.
• Lead with the lower body.
• Primary importance…Get ahead early!

Static or Wind Up Start

Turn

• Stress posture, balance and control.
• Lead with the lower body.
• Primary importance…Get ahead early!
Turn Drills

- Around the clock
- 90 degree turn
- 180 degree turn
- 360 degree turn
- Cone Drill
- MB Turn Drill
- Static leg sweep
- Resisted turns

Flight

- Why there needs to be flight time.
  - Rotation of the hips.
  - Time for the left leg to get in position for touchdown in the front.
- Duration of flight time should be 2-3.5 frames when viewed on videotape.
  - 2 frames is passable (C grade).
  - 3.5 frames is excellent (A+ grade).
- Vertical application of force (Jab).
  - "Jab" is slight push off the left leg down on the circle's surface.
  - Posture is critical to the correct application of the "jab".
- What do you do during the flight phase?
  - The thrower must be passive during this phase and ride it out. If there is any activation of the upper body, separation between the hips and shoulders will diminish, causing slack in the system.

Flight Drills

- Static leg swing & knee lift
- Linear jab
- 3/4 jab
- Turn & jab
Transition

• Half turn drills are essential to teach three concepts.
  – The shortening of the radius of the left leg to increase lower body turning speed.
  – Relaxation and patience of the upper body.
  – Rhythm and timing.
• Some coaches believe the half turn throw is to the rotational shot putter what the stand throw is to the glide shot putter.

Transition Drills

• Pivot & step back line drills
• Half Turn Line Drill
• Continuous Half Turn Line Drill
• Half turn drill
• Continuous half turn drill
• Challenge drill
• Left leg slide drill
• Half turn throw
• Three half turn throw

Delivery

• Thrower must learn to stay back over the right leg and allow the system to uncoil.
  – If the technique is “twisty” little effort is needed to produce rotational forces in the delivery.
• Focus in the delivery on generating vertical lift.
  – Thrower must keep the ball lined up.
  – Cue: Lift & Chase.
Delivery Drills

- 1 1/2 legged jumps
- Crunch drill
- Tap & turn (right leg) drill

Recovery

- Stay on the ball!
  - It takes effort to hit the block. The thrower should focus on staying in the frontal position and in contact with the shot as long as possible.
- Recovery techniques vary by necessity.
  - Chase with the hip.
  - Keep the shoulder high.
  - Fight the rotation.