

ADAPTING TRAINING PLANS FOR THE PREP DISCUS THROWER

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This original offering by Blinn College assistant and past TT contributor Tommy Badon focuses on the need to adapt discus training progressions to the time constraints placed on the high school athlete. Please note the caution in regards to plyometrics for younger athletes.

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In general, developmental training in the throws is a topic often looked at through the eyes of the college level coach and athlete. Many progressions and most periodization charts are produced with a year-round training program in mind. For many high school coaches and athletes, this view is simply unrealistic. The demands placed on the high school coach and athlete are not the same as those at the collegiate levels. Therefore, progressions should take into account the fact that most situations in high school dictate a much shorter season and preparation period than collegians are allowed. With this in mind, this article takes a look at a feasible progression which can be utilized by the high school coach to introduce and instruct his or her athletes in the discus and the throws in general. Stated here are observations involving a periodization plan, drills and technique progressions for the discus, and progressions for plyometrics, to be incorporated into the general strength program.

PERIODIZATION PROGRESSION

For the college level athlete, a year-round training cycle is an essential part of becoming a successful thrower. The training year is broken up into definite phases of varying lengths in which certain areas of training are emphasized more than others. For most high school coaches and athletes, this approach is not possible. Football and basketball often place demands on high school coaches and athletes that make the year-round program an impossibility. In most cases, the training cycles must be made shorter and the training year probably will start much later than in a collegiate setting. Instead of the general preparation period beginning in September as is the case in college, high school physical

preparation usually begins in December-January. Specific preparation begins in February-March and intensive competition is usually in April-May. With this in mind, certain general training guidelines can be followed using these time frames as a reference.

General Preparation (December-January)

1. Training to compete
2. Emphasis on strength/ agility/ speed gains
3. Four-day-a-week weight training
4. Two days of jumping/plyometrics (low intensity, high volume)
5. Two to three days of sprinting
6. Basic skills and drills introduced
7. Alternate implement weights; emphasis on learning correct method of throwing

Specific Preparation (February-March)

1. Technique work increases
2. Three-day-a-week weight training
3. Four to five days of throwing
4. Two days of plyometrics (increase intensity/ decrease volume)
5. Two days of sprinting (increase intensity/ decrease volume)

Competition (April-May)

1. Increase emphasis on technique
2. Quality is key at this stage
3. Two- or three-day-a-week weight training
4. Emphasis on power development throughout this period
5. Eliminate plyometrics in later stages of training (usually 14 days prior to major competition)

6. Work on psychological parameters in this stage
7. Athletes should feel fresh and strong in final two weeks.

Transition (June-July)

1. Training continues, but intensity level must drop off
2. Athlete needs break, both physically and mentally
3. Many coaches and physical performance experts today feel this stage of training is just as important as the other three
4. Weights and easy running are encouraged
5. Game playing (i.e., basketball, softball, soccer, swimming, etc.) are also highly suggested activities during this phase
6. Many high school track athletes are required to go directly into a summer weight training program for football or a summer league basketball program. This can be used effectively in the transition phase, but emphasis must be on having fun, playing well and feeling good about oneself, not on the actual game conditions if the athlete is to fulfill his or her potential in any sport.

TECHNIQUE PROGRESSION

I. Preliminary Position

A. The Grip

1. Two types
 - a. All five fingers spread
 - b. Index and middle finger together
2. First joints of fingers curl over rim.

B. Swings or Windups

1. Down and up rhythm during windup
2. Catch discus high on windup
3. Legs bent slightly, weight on balls of feet
4. Feet shoulder width or slightly wider
5. Weight shifts from right back to left as discus is swung back and forth
6. Eliminate lengthy and excessive windups.

II. Turn

A. Start

1. Key to balance of rest of the throw
2. Final right swing, thrower prepares to lower and initiate first turn
3. Left foot, left knee and left arm pivot toward left (think of this action as stamping out cigarette with ball of foot)
4. Arms remain in line with shoulders
5. Right foot is picked up last, only after initial movements have started
6. Press left hip in direction of throw (don't hide hip on first turn)
7. Do not let heels touch
8. Let arms swing wide
9. Follow left arm around with eyes to stay on

balance.

B. Sprint

1. Right leg leaves circle and moves in an arc from right to left and forward
2. Center of gravity passes outside or at edge of ring
3. Left leg drives toward the front of the circle
4. Begin sprint when left shoulder faces direction of throw
5. Stay on left foot as long as possible
6. Hips advance ahead of the shoulders as a running rotation occurs (think of this action as running away from the discus)
7. Discus rises off shoulder.

III. Landing in Middle and Power Position

A. Landing

1. Right foot lands with attempt to turn inward
2. Keep right foot pivoting (turn heel out)
3. Weight on ball of the foot
4. Center of mass should be over right foot
5. Left leg lands slightly flexed
6. Torqued body position on landing (T-position)
7. Make sure discus is back and hips are ahead of discus.

B. Final Phase

1. Right leg drives hip to the front
2. Keep foot turning, hips and legs will follow
3. Left arm bends to aid delivery by helping to block the left side
4. Weight shifts to the left leg
5. Discus is pulled, not pushed, through in a slinging motion
6. Discus should be released at approximately 39-degree optimum angle.

IV. Reverse or Recovery

A. Right leg usually shifts to the front to check forward momentum

1. Look into circle and reverse feet onto collapsed right leg to avoid falling
2. Regain balance.

DRILLS PROGRESSION

I. Release

1. *Tosses*: grip discus and toss with proper release into air
2. *Bowls*: grip discus and bowl out of front of hand with proper release
3. *Soaps*: grip discus and flip out of front of hand like squeezing a bar of soap
4. *Standing Slings*: stand facing direction of throw, bring discus back behind body and sling forward, releasing using proper grip

5. *Fronts (Power Throws)*: take position in front of the ring, torque body and sling discus forward with no reverse
6. *Cone Drills*: standing slings and fronts with cones instead of discus
7. *Pop Drill*: face direction of throw as in standing slings, bring discus back behind body, placing majority of weight on back leg; sling discus forward, popping left leg off the ground at release.

II. Start and First Turn

1. *Balance Drill*: and facing back of circle, wind discus, bend left knee, press right leg outward and turn 360°
2. *Kick Drill*: coach stands in back of ring, outside of circle while athlete initiates start, presses right leg outward and kicks hand of coach at desired height
3. *Ball Drill*: ball is placed in back of ring on side of left foot; athlete initiates start, presses right leg outward and kicks through the ball as he starts to sprint to front of circle
4. *Hip Lean Drill*: coach stands outside of circle and holds on end of towel while athlete holds other end and leans in toward middle of circle, simulating feel of falling before initiating sprint to the middle of the ring.

III. Second Turn and Recover

1. *South African Drill*: most popular discus drill; face direction of throw in back of ring with left foot to the right of center; swing discus back, sprint to the middle, and complete throw
2. *Step-throughs*: stand facing back with right foot in center of ring and left foot back in heel-toe relationship; step back with left foot to opposite side of the ring in heel-toe relationship; repeat this movement continuously.

PLYOMETRIC PROGRESSION

Many experts in track and field have placed great value on the concept of plyometric or jump training. These exercises, when used properly, can become an invaluable part of the strength training process, especially for the power elements in track and field. What many high school coaches fail to realize, however, is that many of their athletes are not physically mature enough to advance into the higher levels of plyometric training until much later in their careers. Because of this, many coaches have found out the hard way that many of the high-level plyometrics can hurt some young athletes as much as they can help others, even throwers who may have the outward appearance of being stronger than other athletes the same age. High school coaches should keep in mind that the plyometrics progression offered here is safe and has been

used in the field by many outstanding coaches. It is better to be safe than sorry later, especially in the development of the young thrower. Here are a few hints when implementing a plyometrics program into the high school setting.

In-Place Jumps

1. Easiest of all plyometric exercises
2. Consists of any jumps conducted from the ground and in one place
3. Usually used as part of a condition circuit
4. Can be done in sets of 10-50 depending on the conditioning level of the athletes involved
5. Sample jump circuit:
 - a. Rocket jumps
 - b. Butt kicks
 - c. Lunge jumps
 - d. Monkey jumps
 - e. Knee tucks
 - f. Ski jumps.

Multi-jumps

1. Usually two-legged in nature
2. Sample exercises
 - a. standing long jump
 - b. standing triple jump
 - c. hurdle hops
 - d. double-leg bounds
 - e. bleachers.

Endurance Bounds

1. Repetitive Hopping (RRR ... or LLL ...)
2. Alternate Leg Bounds (LRLRLRLRLRLRL...)
3. Repetitive Triple Jumps (LLRLLRLLR or RRLRRLRRLRRL ...)
4. Alternate Hops (RLLRLLRLLRLLRLL ...)

Depth Jumps (Box Jumps)

1. Considered the hardest of all jumping exercises on the legs
2. Safety is a must
3. Land on balls of feet, do not ground heels upon contact with ground
4. Some experts contend that athletes should be able to squat twice body weight before jumping on boxes as high as 24 inches. Certainly, athletes jumping on 36- 42 inch boxes need to be strong and in excellent physical condition before even considering to undertake this exercise.
5. Sample exercises:
 - a. Box rebounds
 - b. Box combinations.

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