THE ABC'S OF THROWING: JUMPS

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JUMPS

The primary objective of speed / power / strength training for throwers is to develop speed.

As we know, the displaying of maximum speed, particularly at the end of the entire specialized movement (throw) increases demands on the thrower's ability to maintain / increase speed throughout the season.

The development of speed depends on the muscle's power of contraction (maximal force in minimal period of time).

For all of us involved in throws, it is obvious, that the level of strength development is, in this case, crucial. But this is not enough. The improvement of ability to utilize the "strength properties" in the smallest possible time frames is of prime importance.

The biggest challenge for throwers is to place proper work on speed and strength in the training program, knowing, that both strength and speed are the motorial abilities existing in a contradiction in the training theory. Simply speaking once you work on strength, you will not be able to develop speed AT THE SAME TME.

Since the thrower has to utilize speed and strength in the competitive conditions, he or she should use speed developing exercises throughout the entire preparation and competitive season.

Thinking of speed developing exercises we select them into three groups:

a) throws,

b) jumps,

c) sprints

In this edition of ABC's I would like to concentrate on some old and new ideas recently presented by two famous Soviet scientists: Y. Verhoshanskij and V. Lazarev for planning speed and strength training with particular emphasizing of jumps in training process.

Generally speaking, the "active" training period consists of four phases.

In the first phase the main goal is to build strength endurance. In this phase the following jumping exercises should be performed:

  - jumping over the hurdles (low hurdles)
  - jumping over hurdles with timing
  - two-leg-bounding over 10-30m distance
  - two-leg-bounding with timing

- The volume should reach 7-10% of overall training volume.

In the second phase the main goal is to develop the absolute (maximal) strength.

- Jumping exercises should comprise 10-12% of overall volume.
- In this phase the depth jumps should be introduced and added to those presented above.

In the third phase the main objective of training is to develop power (force in time).

- The intensity of jumping exercises should be increased by reducing the time (number of jumps in sets) but increasing the height of jumps.
- The volume of jumping exercises should reach 10-15% level of the overall training volume.
- It is important to stress, that two versions of depth jumps should be introduced here:
  - first: with landing angle just below 170 degrees (eg. depth jumps with landing only);
  - second: landing angle at about 90-110 degrees with a take-off following.
- The jumping exercises are the most effective when performed BEFORE strength training.

Two versions may be used: jumping just before strength exercises or jumping session during the previous workout (e.g. morning workout or the day before workout).

Jumps performed after lifting workout are not as effective, but in the general practice they form a “vital” part of proper conclusion of strength workout. (In this case the approach must be very individual).

The general advice to the throwers is to use two-leg-jumps, which are safer and more direct towards the main throwing objectives, particularly in throwing the “heavy implement”, since leg hops at set distances are used rather by javelin throwers and specifically during strength-endurance phase (first phase).

In the fourth phase, during the competitive period, the strength / power / speed workouts should be continued (maintenance), but sessions devoted to strength development are reduced to two to three times a week.

The volume of the jumps is also decreased by 20-30%, with increasing the intensity of take-off: e.g. single jumps over high hurdles, standing long jumps etc.

The extensive technical workouts, supplemented with heaving and sprints should give the throwers a very well balanced speed / power / strength training program in the summer.