

2015 Amherst Comet Track and Field Clinic

Plyometrics for the track and field athlete

What is Plyometrics?

1. Measurable increases where a muscle is loaded and then contracted in a rapid sequence. It uses the strength, elasticity and innervation of muscle and surrounding tissues to jump higher, run faster, and throw farther. Plyometrics enables a muscle to reach maximum strength in as short as time as possible.

What does all this mean?

1. The long jumper as soon as he hits the takeoff board the leg takes a tremendous amount of load, muscles begin rapidly undergoing a rapid eccentric contraction (lengthening). Without hesitation the body responds with a concentric contraction (shortening) if this didn't occur the jumper would buckle and fall right into the pit.
2. Everyone eccentric vs concentric contraction will vary this is where we get the elite athlete to the everyday person.

Aerobic vs Anaerobic training

1. Plyometrics should remain anaerobic (without oxygen)
2. Recovery should be complete between each repetition of the exercise and between each set of repetitions. We are looking for QUALITY not QUANTITY.
3. We want to try and avoid the aerobic state where movements may suffer.

Training program considerations

1. Take into account size of group, ages involved, athletic maturity etc...
2. Sex: girls can be trained like boys but take into account their strength level. (Can they squat their body weight?)
3. Pre-pubescence growth plates still open, caution.
4. Surface used for training

Classification of lower plyometric jumps

1. Jump in place
2. Standing jumps
3. Multiple hops and jumps
4. Bounding
5. Box drills
6. Depth jumps

Equipment

1. Cones
2. Boxes
3. Hurdles
4. Stairs
5. Medicine balls- great for working the trunk chest, shoulders, and pelvic region as well

abdominal and lower back. Working the core is important in training a young athlete to improve posture, balance, and stability.

Example workout

Warm up

1. Track drills A-skip, B-skip, C-skip etc...
2. Core
3. Body Squats 3x12
4. Split Jumps 2x5 (with both right and left)
5. Scissor Jumps 2x10
6. Squat Jumps 3x6
7. Tuck Jumps 3x6
8. POGO 3x10
9. Box Jumps 3 rounds 12", 18", 24", 30"
10. Hurdle Jumps 4 hurdles 21" 4 ft apart
11. Foot work drill
 - A. Ladder 15' long
 - B. 6 12" hurdles 2 ft apart
 - C. 6 6" hurdles 4 ft apart

Static Stretch

1. Quads
2. Hamstrings
3. Groin
4. Calves

A nice steady stretch holding each move for at least a 30 sec count.

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