


## Solutions to Problems that Limit Potential in the High Jump

Presented by Nat Page



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## Aspects of the jumps

- ✦ Creating an approach for the athlete
- ✦ Body Position
- ✦ Take off point
- ✦ Swing Leg (video)
- ✦ Inside arm action (video)
- ✦ Plyometric Drills



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## First Phase of the High Jump

- ✦ Creating an approach for each athlete
  - Measure the approach
  - Learning how to run a rhythmical approach (gradual acceleration, with horizontal speed)
  - Based on athlete's build, ability and speed
- ✦ Preparation for jumping
  - Mental aspects prior to jumping
  - Focus on approach
  - Prepare mentally for early take-off
  - Physical preparation for take-off (body lean, early arm action)

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## Body position at take-off



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## Points to Focus On

- ✦ Foot placement *(should be in the direction of the jump, correct distance away from the standard depending on the jumper)*
- ✦ Very forceful inside swing leg and held high through the take off.
- ✦ High inside lead arm
  - Aids in keeping shoulders parallel and away from bar
- ✦ Slight arch over the bar

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## Plyometric Drills

- ✦ Strength work outs
  - Stair workouts (single-leg hops, double-leg hops, bounding stairs)
  - Box drills (gradual height increase, single-leg, double-leg, depth jumps)
  - Bounding for distance (30-, 40-meter in as few bounds as possible)
  - Bounds to sprinting - single, double, and alternating. 30 meter bounds and 30 meter sprinting

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## Agility, power and quickness

- ✦ In the drills below are to improve, an athletes motor skills through various power and speed movements.
- ✦ Drills
  - 40/40's (alternating bounds/sprint, active skips/sprint, high skips/sprint, high jump take-off/sprint, high knees/sprint, single-leg hops/sprint, quick tempo/sprint)

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## Drills for Speed Hurdles

- Moderate speed  
Hurdling
- Warm-up Drills:  
A Skips to high knees.  
B Skips with strikes to high knees.  
C Fast tempo reactions to high knees.  
3 x 20m from 3 point.
- Pace is 80 to 85%  
Technical points to work on:  
Placement of take off, and placement of lead leg on the back side of hurdle.
- Body position coming of the Hurdle.  
Cut trail leg down Fast: Running 2 x 60m.  
2 x 80m, 2 x 100. The running is all technical @ 75%.
- Put tape down to see the foot place mark at take off and touch down in each hurdle.

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## REAL TIME HURDLLE DRILLS

- ✦ Hurdle Drills and work-out
- ✦ 30" hurdles at 6' apart
- ✦ Hurdle hops. This drill is to produce quick touch down of the led leg and trail leg to maintain your speed thru out the drill.

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## HURDLER DRILLS

- ◆ 2. 30" Hurdles Set at 10 -11 feet apart. Athletes are to start from normal 100m hurdle start line. The lead and trail drills that are done on side of the hurdle are to be done at 70 to 80% speed. This drill is to isolate each leg and work on each leg individual action and quickness.
- ◆ 3. When demonstrating the lead leg action, the lead leg is to react and be forced down as fast as possible and as close as possible on the back side of the hurdle. The trail leg is to also react and be forced down as fast as possible, but also to push off with the lead leg to maintain velocity to the next hurdle. The pushing action is extremely important and the athlete will feel the difference in velocity.

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## HURDLER SPEED DRILLS

- ◆ 4. 30" Hurdles are set at 10 to 11 feet apart. ( One step hurdle drill over the top of the hurdles) Athletes are to start from normal 100m hurdle start line. The trail leg is to also react and be forced down as fast as possible, but also to push to maintain velocity to the next hurdle. The pushing action is extremely important and the athlete will feel the difference in velocity. Leg Actions are the focus in this drill.
- ◆ 5. 24" Hurdle set at 7m apart. This exercise is done as a speed drill. It is done from the normal start line from a three point stance. The actions that we are want to accomplish,
- ◆ Increased horizontal speed over the hurdle, faster velocity between the hurdles for the entire race.

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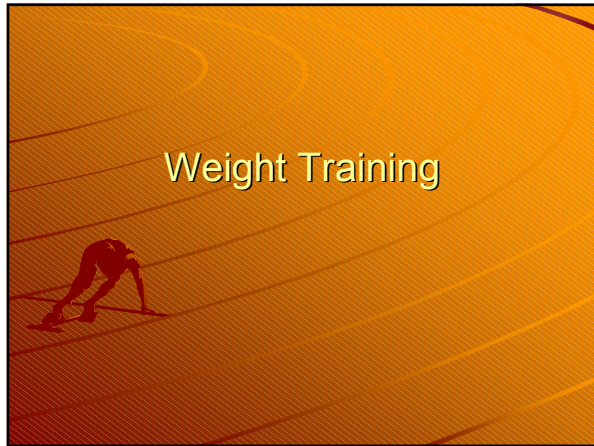
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## Weight Training



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### Weight Training Program

- ✦ Lift three times a week
- ✦ Different workout each day (Monday, Wednesday, Friday)
- ✦ Event specific workouts (jumpers vs. sprinters)

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### Strength Exercises

- ✦ Squats (*front squats, pause squats, tempo squats, quarter squats, squat jumps*)
- ✦ Step-ups (*dumbbell, rack*)
- ✦ Bench Press
- ✦ Olympic lifts (*power clean, power snatch, push jerks*)
- ✦ Leg curls (*single-, double-leg*)
- ✦ Calf raises (*dumbbell, single-, double-leg*)

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### Total Training Programs

- ✦ September
  - *Building cardiovascular and muscular endurance (5 to 6 weeks)*
  - *Building muscular strength (5 to 6 weeks, weight training, Plyometrics bounding, stairs, running drills)*
  - *Develop technical aspects of running (4 weeks, arm action, full leg cycles and range of motion)*

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