

Long Jump Technique and Training

By Jim Giroux, M-F Athletic

To the casual observer the long jump would appear to be one of the most basic of all track & field events. Athletes run up to a takeoff board and without going past it jump as far as they can into a sandpit. Many of us have seen the picture of long time world record holder Bob Beamon soaring over 29 feet in the 1968 Olympics. Regardless of the level your athletes are at they will need to 1) Accelerate to maximum controllable speed 2) Transition this approach into a takeoff and 3) Land the jump in as efficient a manner as possible.

Acceleration and Maximum Speed

In recent years a great deal has been written about these two topics. The ability to accelerate quickly is developed by addressing technique and strength (starting and explosive). In the long jump approach, somewhere between the 4-6 total steps (2 or 3 rights/lefts) are used to accelerate to maximum speed. The slower your athletes are the faster they will get to top speed. Your faster athletes will take longer to achieve maximum speed. The remaining number of steps are done at maximum controllable speed. Maintenance of this speed and the upright posture at the end of the approach is crucial to success.

Acceleration Drills

Wall series 1. Start your athlete with their hands against a wall or fence with their torso leaning from the ankle at 45 degrees with one knee up. Adjust them as needed. Have them “feel” the straight line from their head through their shoulders, hips, knees and finally feet. Repeat the drill without aligning the athlete 2. From position A, have the athlete take 3 or 5 steps in place (walking, marching and finally running) watch that their feet land in the same position they start in. Repeat watching and cueing the straight line from head to toe. 3. Have the athlete repeat the drill keeping lined up but gradually getting more upright with each foot contact, so they end up standing. *Partner series* 1. Have the athlete assume the same leaning start, supported at the shoulders by a partner’s hands; the partner will be facing the athlete. 2. Do a five step start by first marching, progressing to a full effort push. 3. Repeat the full effort start, but at five steps the partner will step out of the way allowing the athlete to continue to accelerate. 4. After assuming the correct lean against the partner, the athlete is released to accelerate on their own. This series of drills can also be done with resistance from the rear like a towel, belt or harness.

Teaching the rocking start The athlete will begin with their takeoff foot forward and rock back so most of their weight is on the rear leg. Make sure they swing their arms in opposition to their legs when pushing out of this position and “rocking” back over their front leg. All forces should be directed horizontally into the ground. By starting in this fashion the athlete is able to use momentum generated from the rock to aid the start. It helps insure a consistent reliable, start that leads to an accurate approach.

Coaching cues for acceleration work Push, lean from the ankle. Tell the athlete to be patient while

executing this part of the approach, allowing the foot contact with the ground to gradually stand them up.

Maximum Speed

Much has been written about this quality. Speed can be worked on with running drills, sprints of various intensities and distances, hill running, over speed towing, approaches with or without a takeoff and other sophisticated methods. The key elements of speed as they relate to the jumps are maintenance of posture and pelvic position through to the end of the approach.

The Takeoff

To effectively set up a takeoff, the cyclic running pattern and heel recovery will be broken on the last two steps of the approach. The penultimate (next to last) step is a full foot contact with a rocking action. This is the longest step of the entire approach. Foot contact will still be underneath the body like the previous steps. The recovery of the heel will be over the ankle or mid calf only. Attempting to run over this step while the foot is still on the ground is a great cue. The takeoff step will be similar to the penultimate in ground contact (full foot, rocking action) and stepping over the ankle instead of heel to butt, but it will be shorter in length. Ground contact will be a little in front of the body. Again continuing to move the body past the takeoff foot while it is on the ground is a good cue. Try to have the athlete anticipate the takeoff steps so they have their ankle and thigh braced and prepared.

Takeoff Drills

Skipping of all varieties In particular, power skips and single leg skips where left or right foot takeoffs are emphasized.

Continuous takeoffs An athlete runs at anywhere from 50-75% effort, exaggerating the heel to butt running action for 3-5 steps followed immediately by the penultimate and take off step action with a "pop up" then running out of the pop up immediately into another 3-5 step running action and takeoff sequence. These can be done with small obstacles or overhead targets like basketball nets at the same or different distances apart to help teach "steering" during the approach.

Approaches with a "pop up" These can be short or full approach runs and the athlete should be instructed to continue to run through the pit after "popping up".

The Landing

Often this or technique in the air is the technical focal point for coaches and athletes. Controlling or limiting forward rotation is the goal of all in the air action. Much of the jump distance is already determined by the approach and takeoff actions. There are some drills listed below which address these areas.

Landing Drills

Standing Long Jump Series 1. Begin with a standard SLJ with an upright landing 2. SLJ with a squat landing 3. SLJ with a kicking leg action and rolling of buttocks to where the feet touch down 4. Walk in version of these exercises with a single leg takeoff a. Knee Landing - Athlete will

approach the pit like in Continuous takeoff drill above, but upon takeoff will land in the pit on the takeoff knee and the swing leg foot (lunge position). Gradually get the athlete to move further away and run in faster. Vertical emphasis. b. Short Approach Jumps - Progress from slow to fast, learning to bring the takeoff leg forward and extended so that both feet are together and the athlete learns how to get their buttocks to where their feet landed.

Common Questions

What foot does the athlete takeoff with? Generally, this is the preferred leg for doing a lay up in basketball, the foot they would generally put forward to start with and the opposite of their handedness (right handed = left foot takeoff). There are exceptions to the rule..., so try both feet if you're unsure.

How long should the approach be? What the athletes can handle, without slowing down before taking off. As a starting point think 5 lefts or rights or 10 total steps and go up or down from there based on competence. This distance should be measured away from the runway. Have them start at a fixed point on the track, accelerate and run through whatever number of steps you have determined as a starting point (5 or 6 lefts or rights). Mark where the takeoff foot lands on 6 approaches. Use the most frequent spot they hit and measure back to your starting point. A couple of reminders, do not have them takeoff when running these approaches. When you add the penultimate and takeoff step, the approach will be longer, maybe a few inches. The athlete should know the distance of their approach and never have to "run it back" at a meet; this reflects lack of preparation. It is easier to count lefts or rights than total steps, so count takeoff leg steps.

Who would be good candidates for the long jump? Consider your hurdlers and sprinters as well as javelin throwers. If you get other sport athletes, look at athletes who already run and jump in games (soccer midfielders, football defensive backs and wide receivers).

What else can my long jumper do? Try hurdles, triple jump, high jump, javelin and sprints.

PRACTICE SUGGESTIONS

No Meets - 5 Practice Days

Day 1 • Dynamic Warm up, including some full speed 30-50 meter build ups or accelerations. • Long jump approaches 4-8, with and without takeoffs in spikes. • Landing drills, pick 2-4 depending on time of year and athlete. • Pick on additional takeoff drill; finish with some short approach jumps. • Weight training (if available and supervised).

Day 2 • Dynamic Warm up, include longer build ups to 80-90% of between 50-100 meters. • Plyometrics (if taught correctly and monitored). • Medicine Ball (if taught and monitored). • Interval training (shorter of the two days).

Day 3 • Continuous Warm up (up to 30' minutes, more work related exercises, core, legs etc.). • Conditioning Circuits (focus on legs, jump like exercises burpees etc.). • Weight training (if lifting 3x/wk otherwise do it on Day 4).

Day 4 Same as Day 1 except no weight training (if lifting only 2x wk then save weight training until today)

Day 5 Same as Day 2 except longer intervals

Saturday Meet - 5 Practice Days

Changes to above schedule

Day 2 - eliminate or dramatically reduce plyos

Day 3 - Could be 2nd jump day (like day 4)

Day 4 - If 2nd jump day is moved this becomes like Day 5, Keep intervals like day 2 and no plyos

Day 5 - This a shake out or pre meet day, Dynamic warm up followed by multi throws or med ball throws

Two Meets In a Week (Assume Tuesday and Saturday Meet)

Day 1 - this becomes Day 2, no plyos, if you're lifting to day 1 here

Day 2 - Meet

Day 3 - Like original day (Recovery, conditioning) or Intervals like original Day 2

Day 4 - Like original day

Day 5 - Pre meet or Shake out

Notes • If you compete twice a week, consider looking at two weeks at a time for getting workouts in (ex. Maybe one week on Wed you recover or condition with circuits, etc. the following week you run intervals) • Consider other events your athletes are in for planning, particularly if they work with a different coach

References

Level 2 Jumps USATF Jumps book

Presentation Notes - Boo Schexnayder "Long Jump" Atlantic City 2002

[Long Jump Shoes, Books, Videos, and Equipment](#)

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