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Developing the Horizontal Jumpers

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Long Jump



Preparation

The long jump is usually the first event contested at the track meet. In most cases the athlete is not prepared to compete by the time competition starts. The athlete should;

- 1) Use the time during team stretching and warm ups to get a good start on getting ready.
- 2) Have all needed material and equipment; Spikes measuring tape, markers and chalk.
- 3) Go directly to the long jump pits from stretching.
- 4) Before taking any practice approaches take several warm up sprints, 60 to 70 meter in length on the track. When you take your approaches you will be at full stride before you compete.
- 5) Now put down your marks. The marks should be established long before the competition starts so that athletes are not going in two different directions at the same time.
- 6) The athlete should take enough approaches so that they are on the board three to four times and they are comfortable with the conditions of the pit.

The Approach

This may be the most important part of the event. The approach must be consistent. It should be so consistent that the athlete feels the distance and knows where they are when making the approach. If the approach is too long the jumper will reach maximum speed before the board and will start to lose speed.

- 1) Establish a routine at the start of your approach. Whatever it may be, do it the same way every time.
- 2) While on the runway mentally picture your next attempt.
- 3) The approach should be an all out sprint. The desired result is achieving top speed at the board.
- 4) During practice, if you can, have your athletes practice approaches on the track. Use chalk to make a board across one lane. Put another line of chalk ten meters beyond the board. Mark the starting point from the board. The athlete should sprint past the board and through the second line. This helps in not slowing down at the board. The jumper should be able to run this six times and have the foot land within a six inch space.
- 5) Identify if the jumper is a speed jumper, strength jumper, or a combination of both. The speed and combination jumper should take a long approach while the strength jumper should use a shorter approach.
- 6) A seventeen step approach is good for high school girls with good speed and strength. The first two steps are walking steps. I use them to make the adjustments needed to get on the board. Once you have established your mark, don't change it. Your mark is sacred. Changing your starting point can really mess you up. Make adjustments by taking long or shorter steps on these first two steps. Use markers or cones during practice to develop the feel for these adjustment steps.
- 7) Time your jumper during approach practice. Establish an average time that it takes for the jumper to start and reach the board. For girls 4.3 – 4.8 is good. The jumper should be consistent on each approach at the same speed.

The importance of a good approach run: taken from an article by Mike Powell

“The thing that I try to tell coaches, get your athletes to think of the long jump as a vertical jump. It's really not a horizontal jump. The distance comes from the speed.

“I believe that the approach is 90 percent of the jump. It sets up the rhythm, it sets up the takeoff, and that's really the majority of the work. Once you leave the ground this whole distance that

you can go is already pre-determined (by) the amount of speed you have at takeoff, your hip height, takeoff angle and the amount of force you put into the ground. All you can do when you get into the air is take away from that."

Coaching points for the approach:

1) *"When you're teaching athletes the approach, don't put them on the runway, because the first thing they're going to do is go, 'I'm going to get to that board.' And I tell my athletes, 'Don't worry about the board. The board is for the officials. That's for track meets.'"* "What you want to do on the runway, in the long jump and the triple jump, is to create the illusion that the runway is short ... and by the time they (bring their head up, they think) 'Whoa, there's the board!' And it's quick. But if they start running and pop up and (think), 'Oh, where's the board? Way down there. How am I ever going to get there?' they start looking around. ... You want to get them to think about the whole way down there."

2) **On not looking at the takeoff board:**

"If they look at the board they're going to foul. If they start looking at the board from four- to six steps out they're going to find a way to change their steps to get to the board and they're going to look at it and they're going to probably be over it. They're going to lose their speed; they're going to lose their hip height. Tell them just to put their foot down. Even at a competition, I say, 'Don't adjust. If your first jump is a foul, OK, that's a warning. Now we know. (The next jump) we'll move back and you should be in the middle of the board if you do everything else correctly.' But in practice always tell them never to adjust to the board. If you're six feet over, or six feet behind, put that foot down (and let the coach make any necessary adjustments)." The landing should be done with the head up.

Tips for take off

- Don't forget the penultimate step "regular - long - regular" the last three steps before the board.
- Remember to run off the board not jump off the board.
- The take off is converting forward speed to vertical lifting off the ground by lifting with the arms and legs.
- The head should be up at all times the body will follow the head. Find a focal point beyond the pit that will cause the jumper to look up and not down at the pit. The athlete should not be looking at the board or the pit.
- The take off should be achieved at the athletes maximum speed.

- The plant foot should be the one the jumper feels most comfortable with. You can determine the plant foot by watching the jumpers shoot lay ups. This method of choosing the foot is important in the triple jump.

When lifting off, the lead arm should never go past the top of the head. And the lift leg should be parallel to the ground at a ninety degree angle.

What to do in the air

- Your jumpers will most likely not be able to do a full hitch kick.
- A jumper whose center of gravity is high up on the body will most likely hang while someone who is long and slender will have more success at the hitch kick style of jumping.
- Whatever they do in the air it must become consistent.
- At the highest point of the jump, the athlete should be in an elongated position out over the pit with the head still up.
- The arms will bring the weight of the body over the feet to start the landing part of the attempt.

The landing

- Keep your eyes on your elevated focal point.
- The feet are in a sitting position with the hands reaching for the feet.
- The feet should stay elevated for as long as humanly possible.
- They should ideally hit the sand at the same time and close together.
- The gluteus maximus should be pulled through the legs.
- All body parts should be moving forward.
- Always remember to leave the pit from the back so as not to scratch the attempt.

Unorthodox methods of teaching the long jump

- Have the athlete do pop ups off the end of the pit. In mid air have the jumper try to touch a flag hanging from a long pole.
- While still indoor have them try to touch the rim or the net of the basketball goal with a three step approach and a five step approach.
- While indoor have jumpers use a high jump mat to practice landings. Practice landing in the mat by jumping from a point higher than the mat, into the mat.
- Set up a jumping box near the edge of the pit and stand on it.
- Make sure it is high enough that you can actually do the hang technique from it.
- Jump out as far as you can and try to bring the legs around so that they are in a sitting position. Circle arms back then forward over the top to bring the weight (center of mass) over the top of the legs.
- Try to land heel then butt into the mat. This will allow you to work on your technique in the air without worrying about approach or foot work.
- Use a gymnastics springboard and a high jump pit to practice in air rotations and landings.
- Use medium approach to spring from the springboard into the high jump mat. While in the air practice leg and arm rotations and putting the body in a position with the feet extended forward in a sitting position with the hands on the inside of the calves of the legs.
- Using a chin-up bar or football goal post; have the athlete hang from the cross bar and practice leg rotations. (This drill must be closely monitored.)
- Three step sit downs; after a three step approach jump into the pit with the feet extended and sit down in the sand (long pants are ideal for this drill.)
- For competition, put a dollar or some token of reward at an unreachable point in the pit have the jumpers try to jump to that dollar or reward.
- Picture poses; Have the athlete approach the pit and pose as if for a picture at each of the phases of the jump. If you have video equipment, let the athletes see how they look. Compare the way they look to videos of the pros.



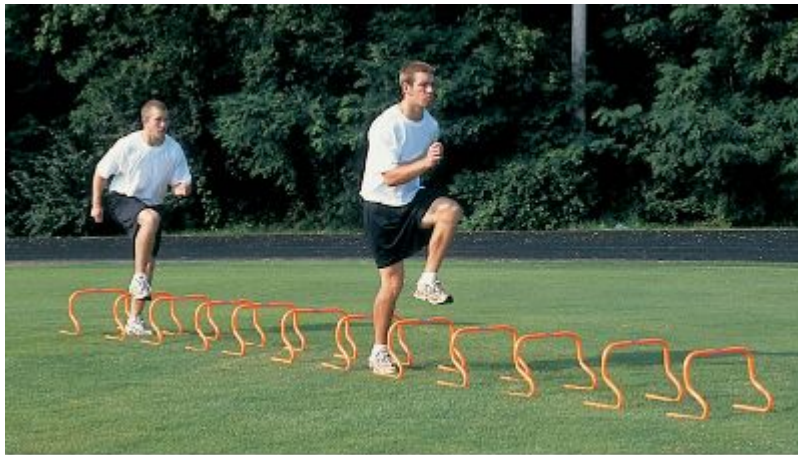
Triple Jump

The placement of the event during the track meet has an impact on how well your athlete will do. Many of the people have performed in two or three events prior to this one. The other problem that determines jump quality is if that person has to run another event while competing in the triple. A person coming back from running the 400 has very tired legs. I have seen the event last long enough that some athletes had run the open 400 and the 1600 relay and still have to take two attempts at the triple.

- Many techniques are shared by the two horizontal jumps. The Triple jump requires more control and better balance. The athlete should possess the ability to combine speed with the balance and control of the body to master **the hope, the skip, and the jump phases of the triple jump**.
- For the athlete that participates in both jumps keeping the distance and steps to the board the same seems to be good (safe) for the approach. However the plant foot will determine if the approach needs to be changed and to what degree.
- **The question that puzzles me is should the jump phase (3) be from the stronger or weaker leg.** In most cases it comes down to how comfortable the athlete is with the phases and if that person was strong enough and controlled enough to take off from the weak leg, hold the phases, and convert the approach speed to a good jump phase. Taking off with the opposite leg will cause either one more or one less step.
- Speed is important. However a person with average to good speed can become a productive participant. If the will, character, and physical strength are good; then the athlete has a chance to do well in this event.
- Good form is of the utmost importance.

General Drills

- Set up learning hurdles so that the jumper must navigate them and jump into the pit. This will cause a drive action with the knees.
- Standing hop-step-jumps or the old hop skip and jump to teach this play Hop Scotch or set tape lines to show placement pattern of the feet.
- Use a four stride approach without much speed. This is a continuation of the learning process from the standing hop-step-jumps.
- **Uphill bounding drills** help to build strength and develop a good leg position parallel to the ground.



Striding over barriers

A good practice activity for teaching the form for the triple jump acquired from *Chip Mosley Bloomington High School*.

- Set up five to eight plastic hurdles five feet apart
- Run to and stride each of the hurdles, so that the thighs are parallel the ground.
- After three reps at this distance increase it by one foot. Keep making this one foot increase in distance, three reps at each distance, until the athletes cannot maintain good form.

Hop Drills

- Single leg hop up stairs or for about 50 meters in the grass. From a short approach take off on one leg driving off the ground and leading with the arms. The arms should help to lift and control the body. They will swing together in an

upward circle motion. Concentrate on bringing the knee as high as possible. The femur should come up to where it is parallel with the running surface.

- Single leg hops over soft cones or hurdles.
- Continuous one legged hops with a butt kick action. Bring the heel as high as possible
- Continuous one legged hops, combining the butt kick with the knee high action.

Step Drills

- Using only the hop and step, set the takeoff point so that on the step, the landing is in the pit. Extend the takeoff point to force a longer step.
- Set up a grid for a series of standing hop-steps. Each succeeding hop-step is a little longer. This is again a little like hop scotch

Jump Drills

- Stand with both feet together and take one step and jump into the pit.
- Using a six stride approach, just do the step and jump phases, concentrating on the drive of the jump foot trying for maximum height during the jump.
- Same as above, concentrating on the arm action. Usually, the triple jump takeoff foot is opposite to the long jump takeoff foot, so there is a difference in the arm action.

Bounding

- Take a running approach into the bounding. The first bound starts with an explosive drive off the back leg, with the opposite knee driving forward at the same time.
- The heel of the lead leg should be directly below the knee with the thigh parallel to the ground.
- Both feet will be off the ground while doing the bonds.
- Use an aggressive but controlled arm swing.

Skipping

- Skip rhythmically by alternately driving the left and right knees upward. Explode off the ground gaining as much height as possible. The athlete must stay in control. This need not be performed over a long distance.
- Use an aggressive arm swing with a blocking motion.

Cycle hops

- Start from a stand still position take one approach step. Force the drive leg upward.
- Elevate the knee to 90 degrees from the running surface.
- Bring the heel of the drive leg to the buttocks without letting that foot touch the ground. Repeat this in sets of three.
- This motion must be done rapidly.