

HIGH JUMP 2010

The objective of the high jump is to clear a crossbar placed as high as possible by jumping off one foot and landing on the opposite side of the crossbar without dislodging it.

The first thing a jumper must learn is jump vertically off the ground as high as possible.

Teaching Beginners

The best jumping technique to start beginners with is the scissors technique. The beginner learns the rhythm of the runup, jump and clearance of the crossbar without having to perform complicated movements of the body. Jumpers also learn to jump vertically, lifting their whole bodies into the air. The scissors technique should be used for several practices before trying a layout over the bar. The very young jumpers under 11 years of age should use the technique for a complete season.

The Scissors Clearance

First, ascertain the foot from which the athlete prefers to jump. Normally, a right handed person will jump off the left foot and vice versa. However, to be sure, instruct the athletes to run straight at the bar from directly in front of the crossbar and jump over the bar set at a low height onto the landing mats. Note which foot they choose to jump off. Have the left footed jumpers assemble on the high jump apron to the right side and the right footed jumpers on the left side when facing the bar.

Instruct the jumpers to run at a 35 to 45 degree angle to the bar and to use a straight runup. They are to jump off the ground with a vigorous swing up of the inside leg and to clear the bar in a sitting position, body vertical. The clearance is completed by lifting the takeoff leg high to clear the bar. The landing is made by dropping the lead leg over the bar as the trailing leg lifts high to clear the bar. The appearance is of a “**scissors**” action of the legs. Basically, it is running over the bar with a vertical jump and high leg action. Cones can be used to indicate the correct angle of the runup.

To improve the height cleared, the jumpers must learn to use a runup of six running strides smoothly accelerated with a very fast last step and very fast drive up of the inside (lead) leg. Measuring the runup can be done initially by placing a cone 6 metres to the side of the landing mat and 7 metres from the plane of the crossbar. The athletes, through trial and error, will begin their runup near this cone starting on the same foot as the takeoff foot.

They can adjust their starting spot either in front of or behind the cone to make their runup more accurate. Once they have a consistent runup, it can be measured so that it can be replicated for each practice and competition. Measuring the runup from the base of the upright holding the near end of the crossbar is most common. The position of the takeoff foot should be about a metre along the crossbar from this upright and about a metre away from the crossbar.

At this stage, the most important skill for the jumper is to be able to run to the bar and jump without hesitation (shuffling) and without slowing down. **A continuously accelerated runup with a fast takeoff** is imperative. After the athlete can jump proficiently with the scissors, it is time to learn the flop.



The Flop Clearance

The “flop” uses a layout clearance technique where the jumpers back is next to the bar and landing is on the shoulders with feet elevated to clear the bar. The landing mat must be large and soft to avoid injury to the jumpers and must project at least one metre beyond the end of the crossbar.



Scissors



Transition to Flop



Flop

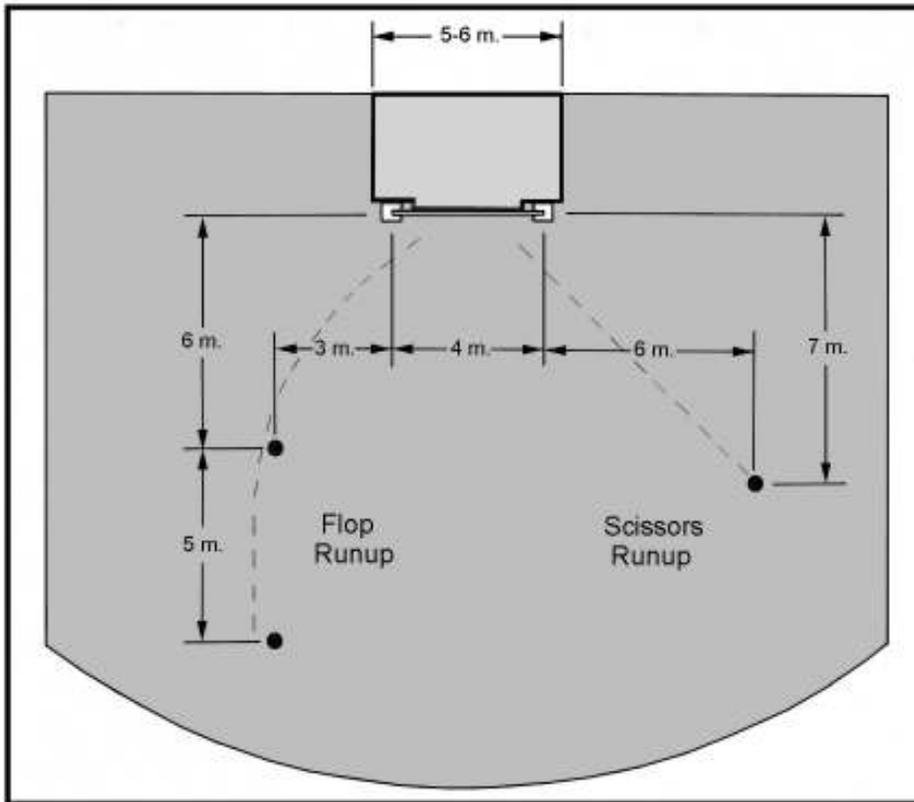


Transition to Flop

Using the same approach runup, instruct the jumpers to take off as in the scissors, but on takeoff they are to drive the knee of the inside leg up and away from the bar. This will turn their backs to the bar. They complete the jump by falling backwards into the landing pit on their shoulders as if they are dropping into a big, soft bed. As the jumpers learn the new back layout technique, additional instructions may help to lift the hips while over the bar and to lift the heels to clear the bar.

Flop Jumping

To complete the transition to flop jumping, the approach run should be changed to a J shaped runup. This new approach run can be guided by placing two cones on each side of the jumping apron. To place the cones, see the diagram on the page following the transition sequences. These cones are placed 3 metres to either side of the end of the crossbar and at distance of 6 metres and



11 metres at right angles from the plane of the crossbar. The final four running strides are curved so that the last stride is again (as with scissors jumping) at a 35 to 45 degree angle to the crossbar.

As the jumpers learn the new runup, the technique of flop jumping can be improved. For all workouts, the bar should be moved up progressively from a height easily cleared to one the jumpers find difficult to clear. Each jumper should take at least 10 but no more than 15 jumps in a single workout.

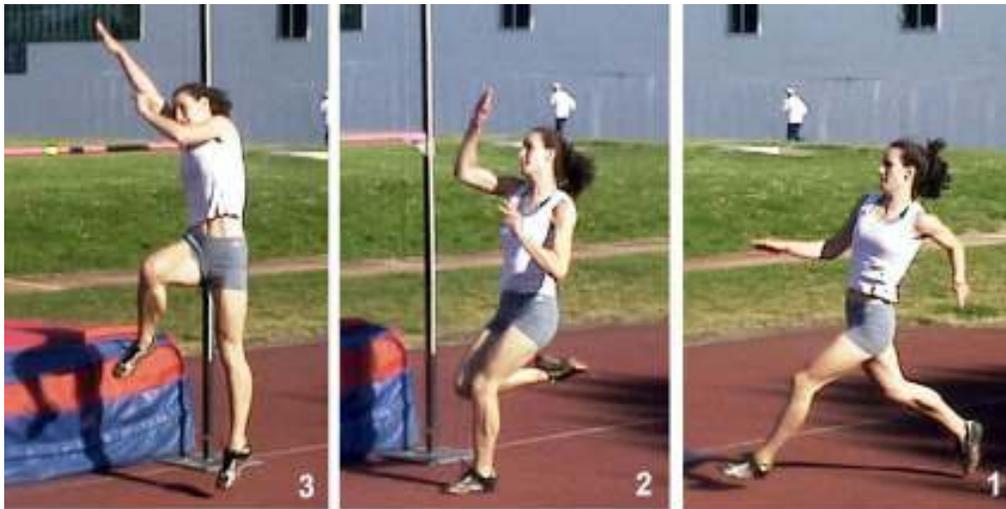
Flop Technique

- Basic technique requires a smoothly accelerated 8 to 10 stride approach run with a very fast last step and explosive drive of the lead leg up and away from the bar.
- The first four or more steps should be in a straight line at 90 degrees from the bar and curved for the last four steps towards the takeoff position.
- The jumper must drive vertically on takeoff, focusing on the centre of the crossbar before arching the back to clear the bar.
- The hips of the jumper must be lifted to clear the bar and may be aided by bringing the heels up under the bar and then pushing the heels out away from the bar and up to clear the bar. The arch can be assisted by having the athlete drop their head back at the maximum height of clearance.
- The knees of the jumper should be shoulder width apart to aid in lifting the hips for the clearance. If the jumpers have difficulty lifting the hips to clear, instructing them to push the hips away from the bar once they are off the ground may help.

Here are some common problems and techniques for correcting them. It is up to the coach to determine which instruction is appropriate at the time.

Planting the take off foot pointed away from the bar: Athletes may unconsciously point the take off foot parallel to or away from the bar at the plant. This can cause injury to the ankle but will also cause the athlete to lean into the bar and jump around rather than over the takeoff foot. Instruct the athlete to point the take off foot towards the centre of the bar when planting it.

Anticipating the layout: Athletes may anticipate the layout over the bar by jumping horizontally across the bar rather than vertically and down the length of the bar. Instructing them to push their shoulders up on takeoff may help.



Another instruction would be to drive the free leg (inside on takeoff) very fast and high on takeoff, pushing it away from the bar. Also, another instruction that may help to get them jumping vertically rather than dropping into the bar would be to attempt to land on their shoulders as far as possible towards the far corner of the pit from their takeoff.

Leaning towards the bar: With young athletes, there is a tendency to anticipate the layout over the bar by leaning in towards the bar and dropping the shoulder closest to the bar. If they do this excessively, revert to the scissors jump for a practice or two. All jumpers should warm up with a few scissors jumps in practices and competitions.

Backovers: You may see young athletes standing with their backs close to a low crossbar and jumping backwards over the bar off two feet to land on the mats. This drill should **never** be done for learning jumpers. It teaches three faults:

- Jumping off two feet
- Leaning backwards into the bar
- Turning the back to the bar before takeoff.

Conclusion

As with any technique event, rhythm and relaxation are very important and practicing at heights within ten percent of their personal bests will see the greatest improvements.

The five elements of flop high jumping are: a **continuously accelerated, curved** approach run, a **fast** takeoff, driving **vertically** from the ground, **lifting the hips** over the bar with knees apart and landing in the pit on the **shoulders** after clearing the feet.

High jumpers as well as long and triple jumpers should have measured runups. It is much easier and more accurate to take out a tape measure to accurately measure the high jump runup. A triangulation method works best with the '0' end of the tape measure placed at the base of the upright.

The coach should bring a tape measure and adhesive tape to the track meets for this purpose. In fact, the coach will need to bring a number of items to track meets. See "Role of the Coach" for a list of items that the coach (or manager) should bring to competitions and to practices as well.

