

Coaching the Triple Jump
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The triple jump, which probably puts more stress on an athlete's body than any other field event, comprises of 5 phases: approach phase, hop phase, step phase, jump phase and landing.

- Approach run up
- Hop Phase
- Step Phase
- Jump Phase
- Landing

To achieve maximum distance in the triple jump the athlete will have to balance four components - **speed**, **technique**, **balance** and **strength**.

New Athletes

Start with the basic movements by having your athletes Hop, Step and then Jump from a standing start. The take off foot should be the athlete's strongest leg, as it will be used in the Hop and the Jump phases.

Teach the hop phase by having the athlete do:

- a walking single leg hop
- then incorporate the circling action of the hop leg
- then multiple single leg hops with a circling leg, flat landing, and upright posture

Consecutive bounds duplicate the step and jump actions and the athlete should do these with a double-arm action and land full footed.

Combine the three phases of the jump by starting with Hop and Step combinations on grass and then add the Jump phase. Emphasize carrying the momentum from one phase to the next with an even rhythm for each phase. Once the jump phases have been put together, slowly add steps to the run up in accordance with the athlete's ability to control speed.

As in the long jump, the athlete's eyes should be focused beyond the pit for the entire jump.

The Approach Phase

The approach run for the Triple Jump is similar to that of the Long Jump and the objective is to create the greatest amount of speed that can be controlled throughout the triple jump hop, step and jump phases. The athlete's strength and technique will determine the optimal run up distance and speed.

The objective of the approach run is for the athlete to achieve the ideal (some may even say 'controllable') speed. Rhythm in the approach run is important to ensure the ideal speed is achieved at take off and accuracy in hitting the take off board. It is important the athlete develops a good running rhythm before accuracy is addressed. The length of the run will depend on the athlete's age and speed. When first determining the number of strides in the approach run start by matching the number of stride with the athlete's age (you may also need to address their training age);

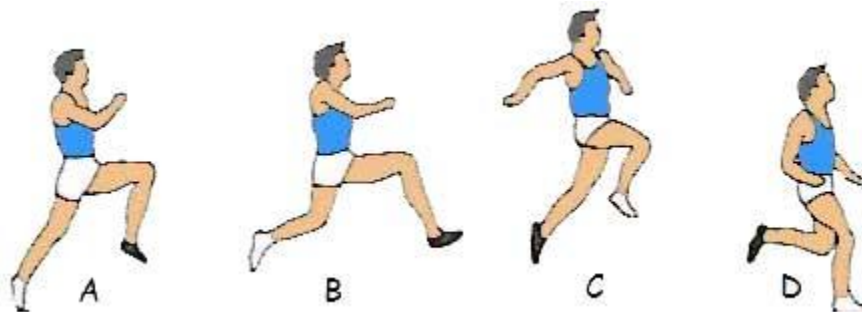
Age	Strides
Under 11	10-12
Under 13	12-14
Under 15	14-16
Under 17	16-18
Over 17	18-22

The start of the approach run should be marked and the athlete should commence the start from a standing start. Some athletes use a 'walk on start' or 'run on start' that will provide more initial speed but if not consistent will impact the accuracy of the approach run onto the take off board. The athlete begins the run with a marked forward lean to develop speed but before they reach the take off board, they should be upright. The athlete should be on the balls of the feet as in sprinting with a natural head position, the eyes focused beyond the pit and not at the take off board.

Accuracy of the approach run onto the take off board is established by:

- Determine the take off foot
- Stand with your back to the jumping pit and the toe of your take off foot on the take off board scratch line
- Run up the runway the required number of strides, say 18, and place a marker where the 18th stride falls (you can also do this on the track having them run 18 strides & mark w/ rock/marker their 18th stride over and over)
- Place the **take off foot** on the marker and run back towards the board and take off. The coach should note where the 18th (or whatever yours it) stride lands in relationship to the take off board.
- If the foot is behind the take off board, say 20cm, then move the start marker 20cm forward. If the foot is beyond the take off board then move the marker back
- Repeat the run up and marker adjustment 4 or 5 times to establish a consistent approach run onto the take off board
- Once achieved measure the distance accurately and record it for future use (I have them put it in their phone!)
- It is important to bear in mind that a head or tail wind will affect the run up. A head wind may mean moving the marker slightly forward (I go w/ +/- 12" depending on the wind)

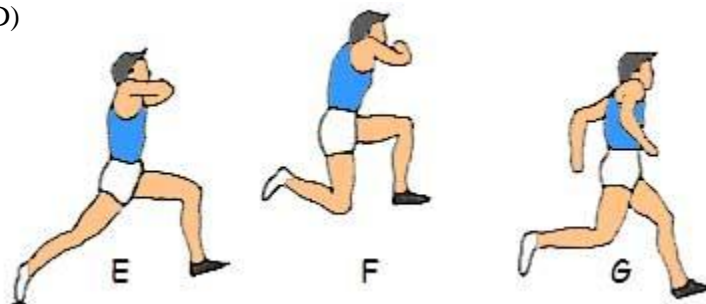
The Hop phase



Coaching Points

- The take-off leg is fully extended (Fig A)
- Drive leg thigh should be nearly parallel to the ground at take-off and the foot relaxed (Fig A)
- The foot of the take-off leg is then pulled to the buttocks (Fig B)
- The drive leg rotates from in front of the body to behind it (Fig B-C)
- Take-off leg begins to pull forward (Fig C)
- As the thigh of the take-off leg reaches parallel, the lower portion of the leg extends past the knee, with the foot dorsiflexed (Fig C)
- Once the leg is extended, the athlete then forcefully drives the leg downwards, setting the athlete up for an active landing (Fig D)

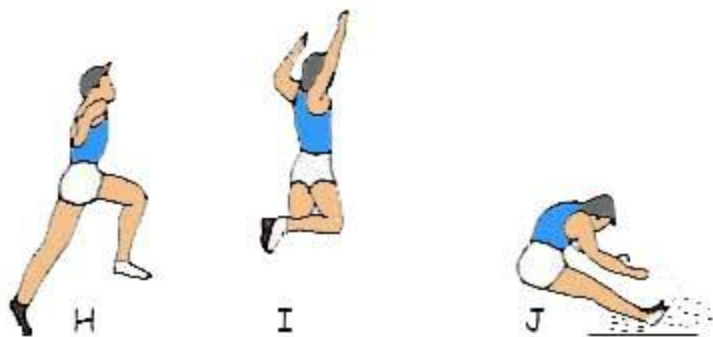
The Step Phase



Coaching Points

- The take-off leg is fully extended with the drive leg thigh just below parallel to the ground (Fig E)
- The take-off leg stays extended behind the body with the heel held high (Fig F)
- The drive leg thigh is held parallel with the ground, lower leg vertical and the toe dorsiflexed (Fig F)
- The drive leg extends with a flexed ankle (creating a long lever) and snaps downward for a quick transition into the jump phase (Fig G)

The Jump Phase

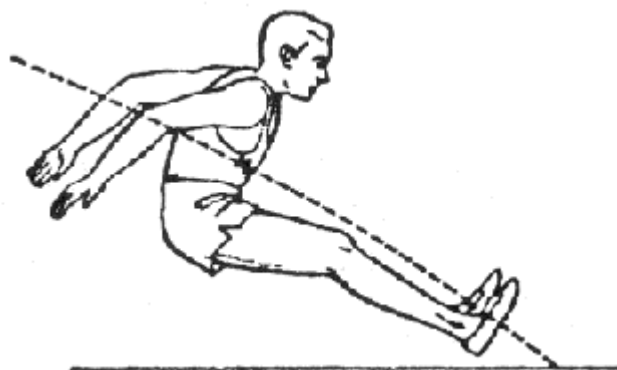


Coaching Points

- The take-off leg (the drive leg in the previous phases) is extended forcefully upon contact with the ground (Fig H)
- The free-leg thigh driving to waist level (Fig H)
- The arms drive forward and up - the torso should be held erect with the chin up and eyes looking beyond the pit - the legs move into a hang position with both thighs directly below the torso, legs bent at the knees - the arms are extended overhead to slow rotation with the hands reaching for the sky (Fig I)
- The arms then drive forward - the legs swing forward - position held until the heels hit the sand when the knees collapse, the hips rise and the athlete slides through the sand (Fig J)

The Landing Phase

During the landing, the athlete is aiming to get the heels as far away from the take off board as is possible. The ideal landing position is shown in the diagram opposite where the dotted line represents the projected flight path of the body's centre of gravity. The heels will need to land just before the projected flight path to ensure the athlete does not fall back into the sand. As the feet make contact with the sand, press the heels downwards and contract the hamstrings causing the hips to rise. As the hips rise twist them to one side and allow the forward momentum to carry the body past the landing position. I like to tell my kids to emphasize the, "bringing of your knees to your shoulders" cue.



Arm Action

The use of a single or a double arm action at take off depends on the athlete's preference - the double arm action provides more power.

Single arm action

- The arm opposite the free leg drives forward and up to shoulder level
- The angle at the elbow should be between 80 and 110 degrees

Double arm action

- The lead arm crosses slightly in front of the body on the penultimate step of the approach phase
- As the take-off step is initiated, the arm pauses next to the body rather than swinging behind as with a normal stride
- As the take-off foot contacts the ground, both arms drive forward and up to shoulder height
- The angle of the arms at the elbows will be greater than 90 degrees in order to create a more powerful impulse forward

Foot Strike

Coaching Points

- In an active landing the athlete's leg is extended, the ankle flexed and the leg pulled down forcefully striking the ground mid-foot (Some opposing theories to this)
- Upon contact the body rolls forward over the foot onto the toes while pushing off the ground

Jump Distribution

Aston Moore (BAF Junior event Coach, Triple Jump 1992) considers the appropriate distribution of the triple jump distance is as follows - Hop 35%, Step 30% and Jump 35%.

Evaluation Tests

The following evaluation tests can be used to monitor the long jump athlete's development:

- 10 stride test
- 60 metre speed test
- Flying 30 metre speed test
- Jumps Decathlon
- Leg Elastic Strength test
- Standing Long Jump test
- Strength test - upper body (Bench Press)
- Strength test - lower body (Leg Press)
- Sit Ups test - abdominal strength
- Sit and Reach test - lower back and hamstring test
- Vertical Jump test

Associated Books

The following books provide more information related to this topic:

- How to Teach the Jumps, D. Johnson, ISBN 0 85134 090 3
- Advanced Studies in Physical Education and Sport, P Beashel et al., ISBN 0 17 4482345
- Physical Education and the Study of Sport, B. Davis et al., ISBN 0 7234 31752
- Essentials of Exercise Physiology, W.D. McArdle et al., ISBN 0 683 30507 7
- Physical Education and Sport Studies, D. Roscoe et al., ISBN 1 901424 20 0
- The World of Sport Examined, P. Beashel et al., ISBN 0 17 438719 9
- Advanced PE for Edexcel, F. Galligan et al., ISBN 0 435 50643 9
- Examining Physical Education, K. Bizley, ISBN 0 435 50660 9
- Sport and PE, K Wesson et al., ISBN 0 340 683821

Website resource

<http://www.brianmac.co.uk/longjump/> <http://www.coacheseducation.com>

<http://completetrackandfield.com/jumpstraining/triple-jump-dvd/>