



# **Running**

## **Introduction**

Running has been a natural part of man's existence, it also breed a competitive spirit which manifests itself in everyone from Olympic competitors to fun runners. A number of people are taking up running for competition, for health or for fun. Today the leading road and marathon runners are drawn from athletes who have made career on track and who have specialized in road running. International association of Athletics Federation has recognized Mountain race and Trail races.

Running events selected by IAAF to be included in the Olympic Games, Asian Games and other continental Games are 100 m, 200 m, 400 m, 800 m, 1500 m, 5000 m, 10000 m and marathon.

100 m, 200 m and 400 m are classified as sprint and 800 m, 1500 m, 5000 m and marathon as middle and long distance race.

## **SPRINT**

In 100m race there are four/five distinct phases. The start, the pick up, the acceleration, the development of maximum speed and the finish.

The start, the sudden change from a stationary to a running position is the most precious phase and is fundamental to spring away from the start as quickly as possible.

## **On your mark**

An athlete preparing to take part in a sprint race moves into his lane behind his starting blocks. When the starter gives the command "on you marks" he moves forward, kneels in front before touching the blocks, then backs into them and rest feet on the blocks, so that they are secure.

The crouching position that he adopts depends mainly on the arrangement of the blocks in relation to one another, and their distance from starting line. There are no standard measurements to follow when securing the blocks on the metal rod to which they are fixed, but they should be positioned according to the physique of the particular athlete and thus the length of his limbs. The distance between the two blocks must enable the knee of the rear leg, once the crouching position has been adopted, to project about 10-15 cm beyond the front foot. Usually the average distance between the two blocks is about the length of the athlete's foot (between 28 to 21 cm). The distance between front blocks and starting line

must be such that the front knee just meet the plane passing through the arms; this distance is usually equal to twice the length of athlete's foot (50 to 60 cm). with his feet on the blocks, the competitors bends his legs and places his hands, thumbs inwards just behind the starting line. His fingers too must always be behind this line. His shoulder should be perpendicular to his hands with his arms extended and his eyes firmly on the ground.

## **SET**

At the command "set" the athlete extends his legs and lifts his pelvic. His pelvic is higher than his shoulders, which are slightly farther forward than his hands. His gaze should be directed towards his thumbs. At this point, the athlete should feel the weight of his body supported equally by his hands and feet. If there is insufficient weight on his hand, he should lean slightly further forward with his shoulders, while excessive weight on his arm means that he should lean further back.

## **GO**

At the command "Go" or when the gun is fired, the athlete removes his hands from the ground and swing his arms, one in front and the other behind in a coordinated movement with the lower limbs. The front leg drives hard against the blocks and the rear leg comes forward with the knee bent towards the chest. In this swinging movement, the arm opposite the leg which is bent forward from behind is brought forward, while the arm opposite the leg which is extended is pulled back and propels to the body forward in the act of straightening to maximum extension, the head, perfectly relaxed on the neck must not be rest to look at the finish line, but must remain in a straight line extending from the trunk with the eyes looking down at the back.

## **PICK UP**

The first seven to eight strides are called pick up since there is the greatest variation in speed, given that in the short space of about 10 m the athlete passes from zero speed to speed about 9/10 mtrs. per second. Here the body angle will gradually get more upright until, after about eight strides, at normal sprinting angle and the knee lift gradually increases.

## **Acceleration**

Between the first ten meters and 40-45 mtrs. (thus within a distance of 35 mtrs. The athlete's acceleration is increased in that his maximum speed reaches 11.6 to 11.8 mtrs/sec. having reaches maximum speed, the athlete must proceed in complete relaxation so as to maintain the speed he has attained almost constantly until finish.

## **Finishing**

A runner must maintain his body and avoid getting too upright. Having arrived a few meters from the finished line he can, then employ a variety of finishing methods. However, running through the finishing line to a point of five meters beyond is the most favourable for beginners and matured athletes.

## **200 m race**

The start of the 200 m takes place on a CURVE. The starting blocks are positioned near outer line that delimit the lane, so as to follow a starting trajectory which is tangential to the Curve itself 5-6 m beyond the starting line.

## **Running curve**

When building up high speed on a curve, centrifugal force tends to make athletes skid outwards. In order to overcome the force, he has to lean to the bend. The swinging of the arms must not be too extensive. Too fast a start cause a high consumption of energy which is needed to overcome the powerful centrifugal force.

## **400m**

400 m is a complete lap of the track, the athletes effort is intense and sustained over comparatively long distance. This race should be approached by studying the most economical distribution of energy since it is only by interpreting this race correctly and rationally that a young runner will subsequently be able to face it with confidence. The 400m is classified as a Sprint because it still requires an ability to achieve peak speed.

## **800m**

In middle and long distance running one tactical error can ruin an athlete's chance to success as such tactics play an important part to win the race.

800 m race is really the middle distance race par excellence in which both aerobic and anaerobic energy systems are used almost equally where one Tactical error can ruin an athlete's chance of success.

In 800m race the first bend is run in lanes and the race regained much of its former character of tactics and tension. Experts recommend the set a fast pace to start with, then try to maintain the pace to the finish and another school of thought claim for fairly even (equally) distribution of effort with perhaps a kick off the final bend. However, particularly for this distance the start should be fast it is easier to drop down to the coasting speed then to try.

1500m consisting of three laps of 400m track plus 300m at the start. It starts at the end of first bend after the finish line with the runners lining up across the track. The tempo of 1500 m is slower than that of 800m but the same tactics is applied to a larger extend, especially in the last lap. Pace judgment is a matter of learning how to spread one's effort most effectively throughout the race. An excellent pace judgment/ distribution aiming to cover each 400m lap in identical time is required. The aim should be to run at least possible distance and at the same time to maintain a smooth unbroken rhythm for as much of the race as possible.

## **5000m and 10000 m**

Much of what has been said about tactics in the 800m and 1500m will often apply during the final lap of 5000m and 10000m. The slower pace and much longer duration of longer races allow the runner much more freedom to run in pole position without fear of being boxed in. The runner has to keep well into the inside of the track on all bends. Running just 0.5m wide

then the necessary on every bend in a 5000m race would mean covering about 50 mts. Extra ground.

Tactics in these races are very closely linked with judgment of pace and effort a) whether to follow or bend b) whether to maintain a close or fairly loose contact- all these decisions are based on the feeling for pace and effort, which is developed through intelligent training racing.

## **MARATHON**

The length of the Marathon race is 42.195 Km equivalent to 26 miles and 385 yards. It is the longest race included in the Olympic Programme and the event is held on the road.

Start is the most important because you would like to follow all the runners set off faster than you. You should not follow then, only inexperienced runners shoot off too fast. Start the race 10-20 seconds a kilometer slower than your target race pace. You can easily make it up, you have long way to go. If you find that the first kilometer have run very fast-stop and wake. This is the chance to recover, breaking your rhythm. This time you should be feeling very strong and having to fight the urge to go faster, start drinking water. Assess your position at highway, the last 10 km should be mentally and physically tough concentrate on staying relaxed.

## **Conclusion**

Running is the most popular and simple athletics event in which thousands of people participate for competition, for health or for fun. The advancement of sports science and the development of training and coaching methodology have resulted new world records in running events.