## Training manual

## Athletics - more information

Athletics is the sport of running, jumping, throwing and race walking. The sport is undertaken in a variety of settings - outdoor 400 m tracks in stadiums, indoor 200 m tracks in arenas, cross country in parks and longer distances on the road. The sport is organised into age groups Youth, Junior, Senior, Masters. An athlete who is older than 35 years is called a Masters athlete.

## Competitive Athletics

As athletic performance decreases with age, participants in the Masters competitions compete against athletes in 5 year age brackets- Over 35 , Over 40 , Over 45 etc. Competition is organised at Regional and National levels on an annual basis. European and World level competitions are held every second year. Unlike the other age competitions there are no performance standards that a Masters athlete must achieve to enter a European or World Masters competition. Many older athletes use these competitions as a holiday opportunity to travel and see different parts of Europe/world. Many friendships are formed at these competitions. This is why European Athletics say "Athletics is Your Sport for Life"!

All athletic performances can be measured. For running/race walking it is the time taken to cover the specific distance.

On a 400 m outdoor 8 lane track the shortest race distance will be the 100 m which covers one straight, then 200 m which is one straight and one bend, the 400 m which is one complete lap, the 800 m which is two laps, $1500 \mathrm{~m}, 5000 \mathrm{~m}$ and 10000 m . For the three shortest distances you must start from racing blocks which will require technical training to ensure you use them correctly. Each of these shorter distances will have a maximum of 8 competitors, one for each lane, so they must at all times run in their own lane. Longer distance races on the track will have a standing start and higher number of participants. For these longer distances a lap counter will be operated by an official and the bell will be rang as you commence your final lap.

The time taken to cover the distance is then compared with other times for similar distances

1) Your previous fastest time to record your Personal Best (PB)
2) Your fastest time this year - Season's Best (SB)
3) The fastest time ever in your country - National Record (NR)
4) Fastest Time ever in Europe or World (ER/WR)
5) The leading fastest time this year in Europe (European Leader EL)
6) Fastest time ever at this race meeting - Championship best CB

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If your performance is at a recognised competition your result will be kept by your National Federation, European Athletics and World Athletics to produce Top Performance Lists for each year showing where your performance ranks against other athletes for that distance.

Many people participate in mass participation road race events where many thousands take part over the following distances $5 \mathrm{k}, 10 \mathrm{k}$, Half marathon ( 21 k ) and marathon (42k).Each participant will receive a Bib number which a timing chip on it which records when they cross the start line and the finish line. As part of the entry process participants are asked what time they expect to run the distance in and are then placed in a starting corral with runners of a similar expected finishing time. Unlike Championship races where only the first three finishers receive medals in mass participation events all participants receive the same medals,

All athletic activities require an athlete to make muscular contractions. The energy for a muscular contraction is supplied in two ways -anaerobically and aerobically. Anaerobic means that an athlete's muscles contract by using stored energy supplies in the athlete's body. Aerobic means that the athlete's muscles contractions use oxygen that is supplied by the cardiovascular system. All athletes have a certain anaerobic and aerobic capacity which can be increased by training.

Running races ranging from short sprints to distance events makes different demands on the athlete's anaerobic and aerobic capacity. Sprints are anaerobic activities. The oxygen demand is so high that it surpasses the ability of the athlete's cardiovascular system to supply an adequate amount of oxygen to the muscles. Instead the athlete's muscles make their rapid contractions utilizing chemical process that set free oxygen stored within the muscle itself. After the sprint is over the athlete's heavy breathing repays the oxygen borrowed from the muscles and also removes lactic acid which is a waste product produced by muscle contraction.

The following safety suggestions should be taken into consideration

- If running in parks check for potholes, tree roots and shar rocks. Try to avoid bottlenecks that could cause athletes to run into each other
- If running on roads run toward traffic, well to the side and wear reflective east to see colours. Be careful at intersections and if possible run with a partner if the areas is isolated.
- Take into account the age, Length of the run, number of athletes and weather expected ( excessive heat requires fluid replacement, cold requires warm clothing like hat, gloves or tights).
- Good warm up is essential and should include loosening, stretching and light flexibility exercises.


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－Develop the program slowly and carefully．To minimise risk of overuse injury do not increase total distance by more than $10 \%$ from one week to the next．
－Begin by using a run－walk and visually assess how athletes are doing－flushed faces， gasping and signs of discomfort are signals to cut back and ask questions about how the athlete is feeling today．

Technique
－Run with an upright body position．Allow some forward lean if accelerating
－Stride length－in shorter distance it should be moderate to long，shorter for longer distances
－Knee lift should be higher for sprints，lower for long distance
－Arm action－should always balance the motion of the legs．Swing forward and backward，not across your body．Vigorous when sprinting，minimal when not sprinting
－Try to relax as you run particularly the shoulders and neck
－Keep your vision forward（not on the ground）and your head up．Don＇t roll you head or let it drop．

