



Endurance Sports Training

Training for a 10k Event By Ben Wisbey

Introduction

Many runners set their sights on running the marathon as they feel they have no speed, and are therefore not suited to shorter races, such as 5 and 10km's. This is generally because recreational runners devote minimal time to speed development. Instead they develop endurance, and feel that because they can finish a marathon, they are better suited to longer events.

However, those runners who have the patience to develop speed for shorter distances will realise even greater benefits when they decide to take the step up the marathon. Building speed before endurance is always the best method of enhancing long-term performance. This article will give you a taste of speed training as it includes an eight-week training program designed to develop your running so you can complete a 10k race in your desired time.

The program assumes a basic level of fitness, allowing you to complete the first week relatively comfortably. If you feel as though you might struggle with the beginning weeks of the program, then a period of bridging may be required. To do this build your aerobic fitness by completing predominantly aerobic runs over a 3-6 week period.

How do you assess your goal time for the 10km?

If you have not done a 10km event before it is important to work out a realistic goal time. This is important not only in terms of your racing plan but also for correct training speeds. The best way to establish 10km goal time would be to use previous race times as a goal, for example, using 5km race time, you should prepare for a 10km time of about 2.1 times your 5km time.

For example, if you have recently completed a 5km in 22:00, then you should aim for a 10km time of about 46:12 (i.e. $22:00 \times 2.1 = 46:12$).

Obviously this is a generalised rule. It should only be used as a guide when you don't have previous 10km experience to go on.

Once you have decided on your goal race time, then choose the training program that is closest to that goal. For example if you believe that your goal time is 45 minutes for the 10k, then simply choose the 40 minute program and adjust some of the training speeds to meet your goal time.

The Physiology of the 10km

For optimal results in a 10km you will need to run at an intensity slightly above your anaerobic threshold. This is quite intense in terms of physiological demand, particularly for those wishing to achieve the distance in between 40 and 60 minutes. The primary difference between the 5km and 10km in terms of demand is that the 10km uses a greater amount of aerobic energy, and therefore strength and endurance are also very important.

For these reasons, the primary focus of any 10km program should be boosting anaerobic threshold, improving aerobic endurance, and developing strength to minimise fatigue during the event. Although these characteristics are the primary focus, approximately 15-20% of energy for the 10km is produced anaerobically. Therefore the anaerobic system also needs to be trained- through the use of VO2 max intervals.

Training for the 10km

Without writing an individualised training program it is difficult to establish a weekly training program. This program provides key sessions and lets you structure the weekly key sessions into your working week.

It is important that you have at least one easy day or day off between all hard days. Hard days are those days in which you complete the key sessions that are listed below.

Essential Sessions for the 10km

The three key sessions that we will use to prepare you for the 10km are a longer aerobic run, a speed/VO2 session, and a session we will term cruise intervals. The 8-week training program is detailed below, however a summary of each session type is first required.

Long Aerobic Run

This session should be completed once weekly, and is aimed at improving aerobic endurance, strength and fatigue resistance. This run should ideally be completed over natural undulating terrain and at a moderate/comfortable intensity for the duration of the run.

Speed / VO2 Session

This weekly intensity session has two components to it. Each of these components will be emphasised at different times of the training program.

The speed portion of the session is conducted as a series of high-speed efforts ranging from 200-300m in length. These efforts are aimed at improving your maximal speed and running economy. This improved running economy will filter down to slower speeds as well, such as your 10km race speed. Each speed repetition is conducted in a fresh state, to allow you to hold good posture, and achieve high speeds. While these efforts are done at a high speed, they should **not** be a maximal sprint; focus on being fast, tall and in control of your technique.

The second part of the session is conducted after 4-5 minutes of easy running to allow recovery from the speed repetitions. These VO2 intervals are slightly longer, ranging in distance from 600-1000m in length. The aim is to boost your VO2 Max., sustainable running speed and increase your understanding of pacing. Between each effort a short recovery of between 90 seconds and 2 minutes is had, thus only partial recovery is allowed.

These sessions should be completed on a track.

Cruise Intervals

Cruise intervals are slightly longer intervals done at a speed a little slower than 10km race pace. The aim of cruise intervals is to improve anaerobic threshold, strength and running economy.

These intervals should not be done too hard, as this negates the purpose of the session. However, by doing 4-7 minute intervals the session becomes quite stressful. Ideally, this session should be conducted on natural terrain that is predominantly flat, with a few small rises, such as ovals or golf course.

All sessions should have a warm up and cool down.

All sessions should begin with a 10-12 minute warm-up. This should be made up of 6-8 minutes of easy jogging and then some drills to take your limbs through a wide range of motion, such as high knees and butt kicks. It is also a good option to complete some short stride outs, especially prior to speed sessions.

It is also essential to complete an 8-10 minute cool down at the end of each session. This will enhance recovery will allow you to back up for your next session feeling fresher and ready to go.

In the program details below, the duration of the weekly long run includes 10 minutes of warm-up and 10 minutes of cool down. So, when a 60 minute run is scheduled, this includes 10 minutes warm-up as above, 40 minutes at the desired pace/intensity, and then 10 minutes cool down.

All extra runs should be recovery

The key weekly sessions are outlined in the program below. There is only 3 sessions that need to be completed as part of the structured program each week. However, for those runners wanting to break 40 or 50 minutes, it is important to supplement these 3 key sessions with some lower intensity recovery runs. These runs can be completed 1-3 times weekly and should consist of 25-40 minutes of easy running. They should not be stressful at all, and in most cases you should finish the run feeling better than you did at the beginning.

Training Speeds

The speed and intensity at which key sessions are completed is extremely important, and the suggestions should be followed closely. You might think, "if I run faster in the VO2 intervals, then I will improve more". This is **not** the case! It is a matter of following the set paces, as these are the intensities designed to improve specific aspects of your running for a 10k race, as outlined in 'The Physiology of a 10k'.

It is important that runners who are aiming for times between 40, 50 and 60 minutes adjust the paces accordingly.

After each suggested pace in Figure 1. there is a number in brackets representing the suggested exertion or intensity. This number is out of 10, with 1 being easiest and 10 being maximal. When completing a 10k race the perceived exertion you would expect would be approximately a 7-8 out of 10. Although the paces may be different for each group, the perceived intensity should still be the same as we are trying stimulate the same training response.

	40min / 10km	50min / 10km	60min / 10km
Long Aerobic Run	4:50-5:10 min/km (5-6/10)	6:05-6:15 min/km (5-6/10)	7:10-7:20 min/km (5-6/10)
Speed Intervals (200m/300m)	42/64 sec (9 ½ /10)	52/80 sec (9 ½ /10)	63/103 sec (9 ½ /10)
VO2 Intervals (600m/800m/1000 m)	2:15/3:00/3:48 (8-8 ½ /10)	2:45/3:45/4:42 (8-8 ½ /10)	3:18/4:26/5:35 (8-8 ½ /10)
Cruise Intervals	4:05-4:12 (7/10)	5:05-5:15 (7/10)	6:08-6:18 (7/10)

Figure 1. Suggested Paces and Intensities for Key 10k Training Sessions

The 8-week Training Program for your 10km Event

Week	40min /10km	50min /10km	60min /10km
Week 1 - Cruise Intervals - Speed/VO2 Session - Long Run	2x5min with 4min rec. 4x200m/3x600m with 2min. rec. 60 minutes	2x4min with a 3min rec. 3x200/3x600m with 2min rec. 50 minute	2x4min with 4min rec. 3x600m with 2min rec. 45 minutes
Week 2 - Cruise Intervals - Speed/VO2 Session - Long Run	2x7min with 4min rec. 4x200m/3x1000m with 2min rec. 65 minutes	2x6min with 4min rec. 3x200m/3x800m with 2min rec. 55 minutes	2x5min with 4min rec. 3x200m/3x600m with 2min rec. 50 minutes
Week 3 - Cruise Intervals - Speed/VO2 Session - Long Run	3x6min with 3min rec. 4x300m/3x800m with 2min rec. 70 minutes	3x6min with 4min rec. 4x200m/4x600m with 2min rec. 60 minutes	3x5min with 3min rec. 3x200m/3x800m with 2min rec. 55 minutes
Week 4 - Recovery Week - Cruise Intervals - Speed/VO2 Session - Long Run	3x5min with 4min rec. 3x200m/4x600m with 2min rec. 60 minutes	3x4min with 4min rec. 2x300m/3x600m with 2min rec. 55 minutes	3x4min with 4min rec. 2x200m/3x600m with 2min rec. 50 minutes
Week 5 - Cruise Intervals - Speed/VO2 Session - Long Run	5x4min with 2 ½ min rec. 3x300m/4x1000m with 90sec. Rec. 80 minutes	4x4min with 3min rec. 3x300m/3x1000m with 90sec rec. 65 minutes	4x4min with 3min rec. 4x200m/4x800m with 90sec rec. 60 minutes
Week 6 - Cruise Intervals - Speed/VO2 Session - Long Run	3x5min with 4min rec. 6x600m with 2min rec. 60 minutes	3x5min with 4min rec. 4x800m with 2min rec. 60 minutes	3x4min with 3min rec. 3x200m/3x1000m with 90sec rec. 70 minutes
Week 7 - Cruise Intervals - Speed/VO2 Session - Long Run	4x4min with 2min rec. 5x1000m with 90sec rec. 60 minutes	4x3min with 2min rec. 5x800m with 90sec rec. 50 minutes	4x3min with 2min rec. 6x600m with 90sec rec. 50 minutes

Week 8 Race Week - VO2 Session (4 days prior) - Surges (2 days prior)	4x600m in 2:15 with 2min rec. 30min with 4x30sec @ race pace, with 2min rec.	4x600m in 2:45 with 2min rec. 25min with 4x30sec @ race pace, with 2min rec.	3x600m in 3:18 with 2min rec. 25min with 4x30sec @ race pace, with 2min rec.
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Figure 2. 8-week 10km Training Program

Other Aspects of 10km Performance

Achieving your 10km goals is not just about completing the key sessions. There are other important aspects of performance. Remember to follow a sensible nutritional plan, from day to day, and pre and post training.

Stretching is also an essential aspect of training. Stretching should be completed after each training session, as well as during designated stretching sessions 2-3 times per week. Improved flexibility will reduce the chance of injury, reduce fatigue, and improve running efficiency.

Recovery is another crucial part of your training program that is often overlooked. Without adequate recovery, all those hard training sessions will not have time to sink in and cause an adaptive response. So allow plenty of time between sessions, get regular massage if possible, stretch, take it easy when your feeling run down, allow plenty of time for sleep each night, and eat within 30 minutes of finishing your training sessions.

Conclusion

This program should provide a well rounded developmental program as you progress towards achieving your goals in the 10km event. This program should allow for some speed development as well as laying a solid foundation of endurance, strength and economy from which to build on in the future.

Good luck with your 10km event.

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