

THE LONG STEADY RUN

There are as many training plans as there are coaches, but one thing most will agree on is the benefit of the long steady run. You should include at least one LSR in your training schedule each week. This improves race performance at all distances beyond 800m.

As you may know, there are two basic types of muscle fibres, fast-twitch and slow-twitch. Fast twitch fibres produce more power, but they tire easily and don't make efficient use of oxygen. Sprinters have a high proportion of fast twitch muscle fibres. Slow twitch muscle fibres on the other hand produce less power, but they are fatigue resistant. They also use oxygen efficiently.

There is little or no magic in training. The results depend on the type, duration, intensity and frequency of your training. Running fast for short distances will mainly train your fast twitch muscle fibres and their fuel systems. This improves your ability to do a sprint finish at the end of a long race. However, if all your training is short and fast, your speed over longer distances will not improve, because your slow twitch fibres are not being developed.

Running regularly at a moderate aerobic pace (about 70-85% of your maximum heart rate) will improve your speed over longer distances. The effects of this type of training accumulate over time. The benefits include improved blood flow to the slow twitch muscle fibres (you literally grow more capillaries); more mitochondria, which combine sugars and fats with oxygen to provide energy to the muscle cells; improved fatigue resistance; and improved ability to use fat as fuel.

The results are best when you run continuously for an hour or more. This gradually increases the amount of oxygen you can burn, which is the main factor in deciding how far and fast you can run.