**Hill Training**

5th June 2014

As runners and coaches we often hear runners saying how much they loathe hill training or hilly races. Hill workouts aren't a stroll in the park but done at the correct effort level, they shouldn't be the lung bust bursting, muscle burning sessions that most runners fear. Those of you who are coached by us or who have tried one of our training plans, know full well the benefits they can produce after a consistent period of time. A recent study suggests too that hill training can be a great aid to helping you run a new 5k PB.

The [research](http://www.ncbi.nlm.nih.gov/m/pubmed/23538293/) from New Zealand, gathered a group of runners to race a 5K time trial, followed by a 6-week program of hill training. Once they had completed the 6-week program, the runners raced the same 5k time trial. On average their times improved by an impressive 2 percent. For a 20 minute 5k runner that's a 24 second improvement.

Hill training doesn't just contribute to faster times at 5k. It can be used within any training program right up to ultra marathon distance to improve muscular endurance and aerobic performance. It's great for the the mind too in building mental confidence and gaining satisfaction by completing a challenging work out.

Training up and down hills will improve muscular / strength endurance and your speed of leg turnover (cadence). Hill training uphill will force you to activate your glutes and use your hamstrings. Poor glute activation can often lead to a whole host of injuries and a less efficient running technique. By running up hills, the improved leg strength that you get will translate into increased efficiency over added mileage and intensity. You will better activate and use your kinetic chain so that you reduce the risk of injury.

It will also help you to properly use your arms too. Hill training will make you focus on opening up your hips and correctly using your arms to drive strongly up the hill. Running downhill will increase the speed of your leg turnover and balance. A quicker leg turnover will lead to an improved running technique.

All of these training adaptations will lead to faster times on the flat and lesser drops in speed during races running up or down inclines.

Whilst there's plenty of benefits to hill training, make sure that you use them at the right time within your training. To get the most benefit of the training, be sure to use them after easier training days and not back to back with a hard session the day before. They should not be done during weeks closer to racing too, Warm up well beforehand and include some dynamic stretching.

Want to try a hill session? Then check out our Kenyan Hills session below. Keith Anderson discovered this type of hill session when he trained in Kenya with some top elite Kenyan athletes so that's why they're called 'Kenyan Hills'.

Make sure you adjust the length of the time for the effort interval from 6 mins and recovery interval of 90 seconds dependant on your fitness level and ability;

**3 x 6 mins Kenyan Hills off a 90 seconds recovery**

Warm up first with 10 to 15 minutes of easy paced run. Include some dynamic stretching and mobilisation exercises too if you have time.

Find a safe hill that's 7 to 10 pct gradient and for 30 seconds to 2 minutes at a solid steady pace, then turn and repeat without any recovery running back down the hill at the same effort level. Once you get to the bottom of the hill, turn and repeat for the remainder of the 6 minute interval maintaining the same effort level. Once the 6 minutes is up, turn and run back down to the bottom of the hill at an recovery effort level. Once you have taken the full 90 seconds recovery to get your heart rate back down, start your 2nd 6 minute interval, repeat so you run 3 x 6 minute intervals in total.

After completing your last effort interval on the hill, cool down with a 10 to 15 minute easy paced run and some static stretching if this is what you usually do.

On a scale of 1 to 10, with 1 being rest and 10 being flat out 5k race pace, the effort interval up and down the hill should be run at an effort level of 8 to 8.5. It should be a 4 to 5 word answer if you speak to yourself or your running partner! Your warm up and cool down should be at an easier more comfortable pace than the efforts up and down the hill where you can hold a conversation at. The recovery intervals in between should be at an easy pace to allow your heart rate and breathing to recover before starting the next 'Kenyan Hill'.