

Uphill Running: the key to tackling hills!



Hills: you either love them or hate them. Either way tackling them can always be a challenge as they break your rhythm and put more stress on your body. A strategy is needed to run them more efficiently and the only way to do this is to practise!

Why hill running?

If you are looking for ways to improve your leg muscle strength, then incorporating some form of hill running may be what you need. It strengthens your tendons and ligaments, which then reduces the risk of

injury and improves overall running form. Not only that, but it improves your running economy, develops your cardiovascular system, increases cadence and protects your leg muscles from soreness.

While exercises such as squats, lunges and hip extensions do increase muscular strength and power, they do it in isolation of your running by focusing on individual joints and small sets of muscles. However, hill running will force the muscles in your feet, ankles, legs and hips to work in coordination with one another whilst still supporting your full body weight, exactly as you do whilst running. As your legs are forced to overcome gravity to move up the hill, your muscles will contract more powerfully than usual, strengthening your legs and developing your 3 types of muscle fibres. This strength endurance in your legs will give you an improved knee lift whilst running and also will quicken each leg forward, causing you to run faster.

All these effects in turn will improve your lactate tolerance, strength endurance, as well as developing coordination by properly using the arm action during the driving phase.

How to run uphill?

The key of running hills is to gain a good rhythm; if you let the hill break your rhythm you will slow down and find it hard to pick it back up again! However, it is important to make running adjustments when approaching a hill. Here are a few tips:

- Look straight ahead when you run. A common problem is a leaning forward motion (looking at your feet). Your posture should be upright to ensure your neck, shoulders and arms are in alignment so they are free of tension.
- As you approach a hill, shorten your stride length and if your breathing starts to quicken compared to running on flat then you're either going too fast or over-striding and will leave you worn out by the time you reach the top.
- When running uphill don't aim for an equal pace, try and maintain an equal effort. This will reserve energy for the rest of the run whilst still putting in a good effort!
- Try and maintain a good knee lift and a maximum range of movement in the ankle by driving upwards, with your toes pushing upwards, flexing the ankle, landing on the forefoot and then letting your heel fall down as your body weight is taken. This motion will not only help strengthen your quads through providing a knee lift, but stretch the calf muscles which over time improve their elasticity and power.
- Running uphill is almost like learning your gears on a car. If the car is revving then you shift up a gear. The same applies with running, your breathing being the rev of the engine and the gears being your stride frequency. So if the gradient of the hill increases, shorten your stride length and increase your stride frequency more to maintain the same breathing pattern. If the gradient decreases, extend your stride again but still maintaining the same level of effort and breathing pattern.
- As you approach the top of the hill (hooray!) run through it, don't pull back on your effort!

And so the best way to tackle those hills is by practising. If you are looking at incorporating hill sessions into your training then you should never do more than 2 sessions per week and make sure the session is at

a sensible volume and intensity. Have fun, and remember for every step you take, a step closer you'll be to reaching the top...