

# Head for the Hills

In the second instalment in our series on training environments, Rod Cedaro outlines how to best incorporate mountains and hills in your triathlon training.

Words: Rod Cedaro | Images: Thinkstock





In the last edition of *TMSM*, we began an investigation into how we can use different environments to train effectively; in this edition we move from the beach to the hills and mountains. These offer diversity and plenty of challenges.

Heading to the hills can help you develop:

1. Strength and power
  2. Speed
  3. Skills
  4. Physiological adaptation associated with altitude exposure – if you're high enough and the exposure is sustained long enough.
- So let's look at each of these considerations in turn.

### Strength and power training

When you mention strength-training, people automatically think about pumping iron at the gym. While this is certainly a legitimate way to develop strength, performing the actual sports modality you wish to enhance is the best way to develop sport-specific strength and power. If you want to build running strength – run, if you want to develop cycling strength – ride.

How you do this, however, varies.

A steeper, slower climb tends to build strength. For example, a seated climb on the bike with a low cadence of 60-to-65rpm where you're 'over-gear'd', sitting down with your butt slid back in the saddle, dropping your heels and grinding away up a six-to-eight per cent incline is probably one of the best ways for triathletes and cyclists to develop glute, quad and calf strength. I often recommend such efforts of between four-to-12 minutes with a 2:1 work-to-rest ratio and four-to-eight reps (depending on the person's background) as a key S-E (strength-endurance) session with triathletes/cyclists I coach. In fact, I believe such sessions to be the cornerstone of effective time trial performance thanks to the development of specific muscles associated with this discipline.

Developing power – once a strength base is in place – can best be achieved, however, getting out of the saddle on a moderate gradient of three-to-five per cent while staying in a moderately large gear. The rider should employ a slightly higher cadence for a shorter duration of time, taking a longer recovery and then going again.

Lance Armstrong demonstrated the effectiveness of this method a few years back when he was in the country for the Tour Down Under (TDU). Uncharacteristically, Armstrong monstered up some of the TDU climbs appearing bogged down in huge gears. This was in stark contrast to the dancing on the pedals with a high cadence we had grown accustomed to watching him race at the Tour de France.

Why was this? Well, he was using the TDU to build his S-E foundation for more important races later in the season.

The same sort of approach can be used when running. Longer, tougher, steeper, sustained climbs will build leg strength, while shorter, faster and more intensive efforts up a lesser gradient will build explosive power.

### Speed training

What most people don't realise is that training for cardiovascular sports isn't all about huffing and puffing. Yes, the cardiovascular component of training is very important, but when it comes to putting the icing on the cake, developing speed is more about developing the neuromuscular movement patterns necessary to turn the legs or arms over quicker and efficiently.

Don't believe me?

Go for a long, slow, easy run and do this for a few days straight. Then get onto a track and try to run fast. You'll find your legs are all over the place. You've gone from repeatedly using your slow twitch type-one muscle fibres to trying to fire your fast twitch type-two fibres. If you haven't been using them, you won't be able to fire them effectively.

Using downhill repeats really helps to facilitate this. Be it on the bike or running, choose a gentle downhill gradient or one-to-two per cent and then either stride down or spin down the hill for 30-to-60 seconds with a leg turnover or cadence higher than what you can comfortably sustain. This forces your fast twitch muscle fibres to fire. Initially on the bike your butt will bounce like you're on a pogo stick and when running your legs will feel out of control. As you hone the movement patterns, however, you'll become more and more efficient at nailing such sessions. These sessions are particularly beneficial when approaching race day.

### Skills

Knowing when to brake, how to enter a corner and how to accelerate out before approaching another corner are all critical skills and best practised when descending hills. Get it wrong and you'll end up with a heap of road rash or potentially something even worse. The best way to hone this skill is by practising it over and over and over again. You'll be amazed at how much time you'll be able to shave off a specific descent just by honing these skills. And because you're taxing your cardiovascular system, this is free time you can make up on your rivals because you handle your bike better than they do.

Some key points to remember when descending:

- Brake before you enter a bend, not while you're in it.
- Come into a bend wide and aim to take your bike through the apex of the curve – this effectively straightens your line through the turn.
- Lean into the curve and raise your inside pedal to 12 o'clock while keeping your outside pedal down at 6 o'clock with your weight firmly on the outside pedal.
- Slide your butt back in the saddle to keep your weight down over the back wheel to avoid rear wheel slippage.
- Don't make any sudden moves while you're in the curve.

**I remember many years ago training in France with a wiry, old Italian cyclist who warned me, "Rod, be careful, the mountains they can eat you!"**

### Hills and altitude

We're not talking about climbing up and down the Dandenongs or Mount Coot-tha here. In order for altitude to become an issue, research suggests you need to be up at about 1800-metres plus, although from practical experience, elevations of significantly lower than this can certainly impact an athlete's performance. So, if you want to use altitude training to your advantage when you transition back to sea level, here are some key points to remember: