

Mastering the Mountains

Mountain running may be inspiring and uplifting, but with no two races being the same what you do for one mountain run or trail race may not prepare you for another. However, armed with a little knowledge of both the mountain and runner in question you'll go a lot further and faster than you ever imagined.

Aerobic Endurance

Aerobic endurance is everything to the runner. Aerobic means "with oxygen," so aerobic running is working at a level where the demands for oxygen and fuel can be met by the body's intake. Thus, the more aerobic running you can do the more you'll teach your body to process oxygen and energy, and thus the further and faster you'll be able to run.

Development of aerobic endurance is best done by running at efforts that allow you to carry a conversation (approx 65-75% max heart rate). This is a comfortable effort, but if you run much harder you won't be able to run very far & thus will not be building endurance. So in almost all cases the key is to run slower for longer. In fact, the longer the race you're training for the longer and slower you should train because this also develops energy systems that will allow you to burn fuel more efficiently.

The generally accepted norm for building endurance is a 60min run. In most cases a person can cover up to three times their average training run, so if you regularly run one hour then you can probably complete a two to three hour race provided you take it easy. However, if long races like the Avalanche Peak Challenge, which takes most people between three and four and a half hours, then it makes sense to develop superior endurance by trying to gradually increase some of your runs so that they approach the time you expect to face on race day.

Muscular Endurance

Every time you go for a run you're developing aerobic endurance. But if you do a certain amount of that running on the hills then you'll also build a muscular endurance that can be invaluable not just for uphill running but for everything from co-ordination to downhill running and lasting the distance.

While easier on the body, off road running requires a much wider recruitment of muscles. As well as the muscular fatigue from running's repeated pounding, the repeated changes in terrain, surface and direction can be even tougher on the legs if they're not ready for it. If you're not prepared for these demands two things happen that will markedly affect your comfort zone: 1) your legs tire, 2) your co-ordination decreases. But well scheduled hill running can give you the strength to not only handle the demands of off road running, but also an ability to finish races faster.

Every time you run up a hill your body has to recruit more muscle fibres and oxygen. Even if you try and take it easy you'll notice an increased muscle fatigue and heart rate. So over time the gradual implementation of regular hill running will strengthen both aerobic and muscular endurance. What this means is that not only will you be able to run further, but you'll also be able to run faster.

If you're training for a mountain run like Bell Hill Challenge, then it makes sense to do some hill training. But because hill running improves your all-round endurance you should do it on a regular basis anyway. For quick and longer lasting benefits, do your weekly long run on the hills and then one or two shorter, slightly faster hill runs during the week.

Specificity

There is a huge difference between being fit and being fit for what you're trying to do. Rugby players are fit, but it's unlikely someone like Sonny Bill Williams would enjoy the Coast to Coast! The point here is that you have to train for what you expect to face.

The great thing about trail running is that every race is different. Some are long and tough, others short and fast. Some include swift river crossing, others root strewn bush tracks. The Coast to Coast

mountain run also throws in rocky river beds and house size boulders to clamber over. In short, you can't expect to enjoy an experience you haven't trained for. The good news is that once you have a certain fitness level the body is very good at learning new skills. It's like riding a bike; once you've done a particular physical skill a few times, the body remembers how to do that. The secret is to show it the right things.

We know now that long runs and hill runs are the crux of any good schedule, but we can tailor these to suit the race in question by doing them over similar terrain.

The Bell Hill Challenge has steep climbs and fast downhill, so farmland, four-wheel drive trails and places like the Port Hills make good training territory for that race. Long runs need to approach 1.5-2hrs because that's the race time for most people.

The Coast to Coast run is on much more varied terrain, but it is also much longer. So make sure some of your training includes rough bush tracks, hill work for general strength, but also steep, rough downhill, river crossing, rock runs and clambering over boulders. Long runs need to get out to at least three hours.

The ideal would be to check out the course in question prior to race day. But that isn't always practical. The key is to do some homework on the race and simulate it in your training. But rather than try to cover all the facets of your race in one workout, break up the different components (uphills, downhill, river crossing, rock hopping etc) and then concentrate on one thing per run.

Recovery

While endurance, strength and specificity are the key components, bringing a well-rounded training schedule together also requires recovery.

To understand recovery you need to understand your body. We're nothing more than adaptive organisms. When we experience stress the body adapts so this stress doesn't tax us as much in the future. For example, when you catch a cold the body builds immunity.

In the case of running, the body adapts by building more muscle and producing more red blood cells to carry oxygen and developing more capillaries to transport that blood. The by-product of this is the ability to run longer and/or faster, but more importantly, you're able to train more and force further adaptation.

However, the adaptation process only works if the body is given the chance to recover. If you become ill you go to bed and you get better. If you don't go to bed you often get sicker. The same applies to running; your body is only able to adapt and become stronger if you take a break every now and then. The key is to plan the breaks rather than be forced into them.

The accepted rule for running is to follow harder days with easier days. For recreational runners that might mean alternating a run day with a day off. A multisporter might alternate running one day and the next day doing a non-running activity like swimming, cycling or the gym. For runners looking to improve performance it means alternating longer runs with shorter runs, hilly runs with flat runs and faster runs with slower runs.

However, regardless of your goals it is also necessary to follow periods of good training with periods of easier training and normally this means alternating two to four weeks of good training with an easier week where you cover about half your normal amount of running. On an even bigger scale, it also makes sense to alternate major goals like the Avalanche Peak Challenge with easier goals.

Putting It Together

It's one thing to know the basics behind training, but quite another to bring them all together into a well-rounded schedule that is suited A) to a specific race, in this case the Avalanche Peak Challenge, and B) to the individual in question.

Every person is different in the amount of running they can handle and what areas they need to work on in regard to the race they are training for and their own natural weaknesses. Certainly, anyone serious about performance would be looking for a personalised schedule. But for recreational runners looking to achieve things they haven't achieved before a well-rounded schedule might look like the following:

Sample Training Programme

This schedule is designed as a guide for runners aiming at trail races like the Bell Hill Challenge (18k).

The schedule assumes a base level fitness whereby you can already comfortably run three times a week for at least 30min.

The amount of running scheduled on any given day (e.g: Run 40-60min) is decreed by your current fitness, or how you feel on the day, or how well you want to do the race. People with time or placings in mind should look to the higher end of the range & replace days off with either a 30min run, 60min cycle or gym workout.

The same runner looking to progress to something like the Coast to Coast run would need another three or four weeks and to add one session per week of rock running and river crossings. From week 10 to week 12 or 13 they would maintain the week 10 training, except gradually increase the longest run out to at least three hours. Then the last two weeks before the longer race are the same as below.

<i>Schedule</i>	MON	TUES	WED	THUR	FRI	SAT	SUN
WEEK 1	Day Off or X-Training	30-45min easy, flat	Day Off or X-Training	30-45min easy, flat	Day Off	30-45min easy, bush	45-60min easy, flat
WEEK 2	Day Off	30-45min easy, flat	Day Off or X-Training	40-60min easy, hilly	Day Off or X-Training	30-45min easy, bush	45-60min easy, flat
WEEK 3	Day Off or X-Training	40-60min easy, hilly, bush	Day Off or X-Training	40-60min easy, flat	Day Off or X-Training	40-60min easy, bush	1-1.25hrs easy, hilly, bush
WEEK 4	Day Off	30-60min easy, flat	Day Off or X-Training	30-60min easy, hilly	Day Off	1-1.25hrs (or race) hilly, bush	Day Off
WEEK 5	Day Off or X-Training	40-60min easy, long hills	Day Off or 30-45min	40-60min easy, flat	Day Off or X-Training	40-60min easy, flat	1.25-1.5hrs easy, hilly, bush
WEEK 6	Day Off or X-Training	1-1.25hrs easy, flat	30-45min easy, flat	1-1.25hrs easy, long hills	Day Off or X-Training	45-60min easy, flat	1.25-1.5hrs easy, hilly, bush
WEEK 7	Day Off or X-Training	1.25-1.5hrs easy, hilly	30-45min easy, flat	1.25-1.5hrs hard, long hills	Day Off or X-Training	45-60min easy, flat	1.5-1.75hrs easy, hilly, bush
WEEK 8	Day Off	30-60min easy, flat, rocks	Day Off or X-Training	30-60min easy, flat, bush	Day Off	1.5-1.75hrs (or race) hilly, bush	Day Off
WEEK 9	Day Off or X-Training	1.5hrs steady, flat	40-60min easy, flat	1.5hrs steady, long hills	Day Off or X-Training	45-60min easy, flat	1.75-2hrs easy, hilly, bush
WEEK 10	Day Off or X-Training	1.5hrs 30min race pace, hilly	40-60min easy, flat	1.5hrs steady, long hills	Day Off or X-Training	45-60min easy, flat	2hrs easy, hilly, bush
WEEK 11	Day Off	40-60min 20min race pace, flat	Day Off or X-Training	1-1.5hrs easy, flat, bush	Day Off	40-60min 20min race pace, (or short race)	40-60min very easy, flat, rocks
WEEK 12	Day Off	40-60min 10min race pace flat	Day Off	30-40min easy, flat	15-30min easy, flat	RACE	Day Off