



THE ULTRAMARATHON PACING GUIDE

Learn how to execute perfect pacing in your goal ultra race with “The Ultramarathon Pacing Guide”

“...There was still a quarter of the race to go, and her legs were failing!”

Jane was excited as race day neared. She had all the usual nerves, but they were a good sign, they showed her that the race meant something. She knew she had done all of the hard work and had been running well for weeks. The training was in the bank!

As she was standing on the start line, waiting for the gun to go, she was quietly confident that she could have a great race, one that her kids and husband would be proud of, one that she would be proud of.

As the gun went she started running, there was the sound of pounding all around as she was swept up in the wave of excitement as all the runners charged off. She found her rhythm and settled in.

As kilometer upon kilometer drifted by, she felt great - she was floating. This is how running and racing should be. Her watch hummed as the kilometres went by, she

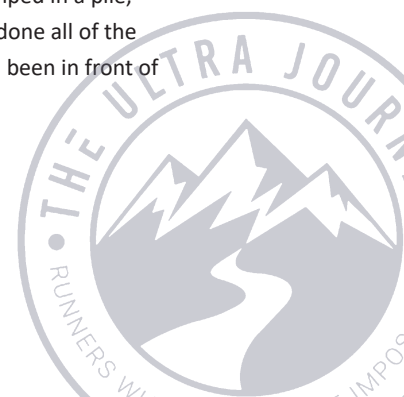
tried not to pay too much attention to the consistent shake on her wrist, but was delighted to know that she was well ahead of her goal time. She felt she could keep this up forever

She kept running and savoured the moment, the freedom, the adrenaline, that feeling when your heart is beating hard in your chest and you know you're alive. Then, almost suddenly, her feeling changed. What was happening? She had been feeling great until now. There was still a quarter of the race to go, and her legs were failing!

She had been feeling great. Why are they failing me? Jane thought. I have built up a buffer so it's not too bad, I'll still be able to make my goal time.

Her pace slowed and other runners started to pass her. She simply couldn't fight it; mentally she was giving it her all, but her pace just kept dropping. She struggled on, the finish line now in sight.

Finally crossing the finish line, she slumped in a pile, exhausted and disappointed. She had done all of the training, she knew she was fit; she had been in front of her time, but what had happened?



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Capabilities, exertion, achievement.

Pacing is one of the most undervalued skills in endurance running. It is essential for success at any level and any distance, from those competing in local trail races right through to those competing at large ultra races. It is essential for every runner; beginner, intermediate, advanced and even the elite.

Working on and developing this skill can bring huge results including personal bests (P.B.'s also known as personal records P.R.) and a much higher sense of satisfaction when you cross the finish line, because you know you have run well, yet still given it your all.

While a sound understanding of your personal pacing can bring about all this, pacing is not an improvement in fitness. It works with what you are already capable of doing. This is why I love tapping into this unfound potential with the trail and ultra runners I work with. It delivers improved results without an improvement in fitness. While the plus side is that as pacing knowledge increases, training sets improve and consequently fitness improves at a quicker rate as well, win, win! The best news is still to come; you can do it too!

What is this elusive term called pacing? Pacing is the ability to control your exertion over a period of time. To accept that pacing is important I hope that we can agree that the average pace/km that you are capable of holding for a 1km dash is quicker than what you can hold for a 5km trail run and that the pace you can hold for a 5km run is quicker than what you can hold for a full marathon and especially an ultra marathon. If it is not, please let me know, I really want to coach you! Pacing requires an understanding of two things. Your personal capabilities: this includes an understanding of how you feel at different levels of exertion, as well as an understanding of what you are trying to achieve. An understanding of these two elements allows us to control the effort that we put out over a prolonged period of time, and as a result, have the best outcome possible.

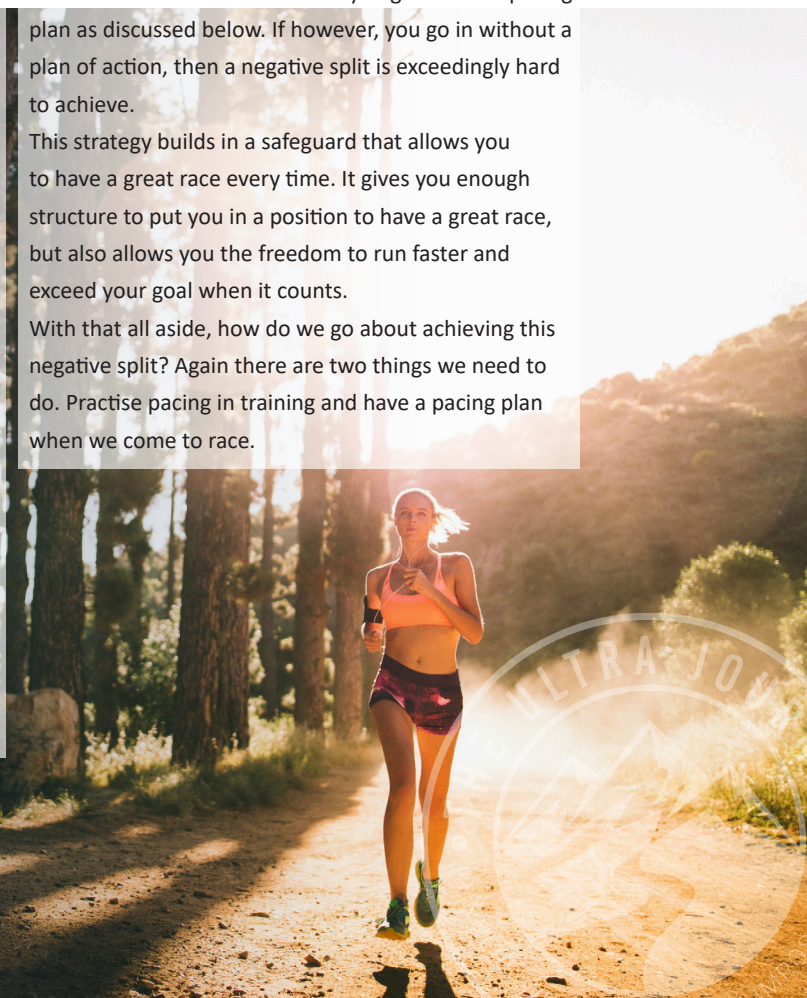
As a trail and ultra runner we need a comprehensive understanding of pacing as physiologically (how the

body functions) this is the best way to deliver your personal best result. To put this in simple terms, due to the way the body functions, if you over shoot, two things happen. Firstly, you push your energy systems too far. This then means that they need to have a period of recovery before you can return to a sustainable level. Secondly, you ‘damage’ your muscles, by damage, think fatigue; this is actually what you do when training. When the muscles recover they come back being stronger. However in a race, you don’t have the time needed for this recovery to take place, this takes days. As a result, if you get pacing wrong when racing, this equates to an exponential loss of time over the second half of your run. So to sum up, if you over shoot your energy systems you then need to back off to allow yourself to recover. If you over shoot for a prolonged period, relative to your race distance, then you accumulate too much fatigue (muscle damage) early and this causes you to exponentially slow over the remainder of the race.

This is where you may have heard people talk about a famed negative split. This is when you race the second half of the race quicker than the first half of your race. It’s not all that hard to achieve if you go in with a pacing plan as discussed below. If however, you go in without a plan of action, then a negative split is exceedingly hard to achieve.

This strategy builds in a safeguard that allows you to have a great race every time. It gives you enough structure to put you in a position to have a great race, but also allows you the freedom to run faster and exceed your goal when it counts.

With that all aside, how do we go about achieving this negative split? Again there are two things we need to do. Practise pacing in training and have a pacing plan when we come to race.



Safeguard your race performance with skewed thirds!

The key to the pacing plan is to break your race up into thirds, however over time it has become apparent to me that it works a little better if these thirds are slightly skewed. I am going to start by explaining the concepts over races of distances shorter than an ultramarathon, lets also assume that these races are fairly flat compared to what is encountered in ultramarathons and trail races. Once we understand the concept then we can apply it to trail and ultra races.

What this looks like for the half marathon is an 8km chunk, a second 8km chunk and a final 5km chunk. Your aim is then to run the first 8km at goal race pace plus 5 seconds per km. For the middle chunk you then drop your pace down to goal race pace. Then for the final chunk you bring it home with everything that you have left, ideally goal race pace less 5 or more seconds per km.

You might be doing the math and thinking this means I'm going to be 15 seconds off my goal pace. In a strict sense this is the case however this strategy has the potential to allow you to exceed if not obliterate your PB. Chances are that over the final 5km you are going to be feeling great and will be more than 5 seconds per km under your race pace. If you're not, then your aim is just to hold your expected race pace through to the finish, thus still allowing you a fantastic race based on what you are truly capable of.

For the marathon this follows the same concept breaking the race up into 15/15/12. Again the first 15km is at race pace plus 5 seconds per km, the middle 15km is at goal race pace while the last 12 is at race pace less 5 seconds or more per km.

Interestingly, this means that you should hit the 30km mark feeling great, well as great as you can for having just banked 30km at a steady clip. When everyone else hits struggle town you are in your groove, hitting the afterburners and flying for home. Watch as you pass all those people who had a poor pacing strategy. Winning!

This concept holds true when it comes to trail and ultra races, however things are a little more complex. This is due to the inconsistent terrain that you are likely to face. Generally the uphill and downhill will cause the biggest discrepancy. We can follow a similar plan, but rate of perceived exertion (R.P.E.) becomes vital. This is where practising in training is of increased importance so that you know and understand what your goal intensity 'feels' like. Then aim to follow a similar method to that mentioned above.

For a 30km trail race this would be broken up into 11/11/8 km segments. You need to be aware that hills will force you to throw times 'out the window'. You should feel in control for the first section, steady for the second section, and run hard in the final section.

For an ultramarathon say for instance a 100km race, we need to follow the same method. Break the race up into 35/35/30km chunks. We need to start easy and build into things over the race. Trust that as fatigue builds you may even find that you are only capable of holding your initial easy pace, but suddenly that feels a lot harder. Remember this plan allows that to happen and keeps you in a great position, allowing you the freedom to run faster when it counts.

While you now have a pacing plan in place, this sort of pace control won't just happen come race day. You need to practise it in training. You can practise pace control in almost any set, below are a few examples. Always complete an appropriate warm up before a set, and a suitable cool down after.



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With luck you can guess where these sets are going!

For the half marathon or trail race of an equivalent time to your road half marathon.

10/10/10 – where each is a 10 minute block.

Aim to pace the first 10 minutes at race pace plus 5 seconds per km.

The middle block is at goal race pace and the final block is race pace less 5 seconds per km. Complete the 10/10/10 segment straight through, programming it into your watch or hitting the lap key between sections.

For the marathon or equivalent trail race follow the same concept but due to the increased race distance move the blocks out to 15 minutes. Therefore the set becomes 15/15/15.

15 minutes at goal marathon pace less 5 seconds per km

15 minutes at goal marathon pace

15 minutes at goal marathon pace less 5 seconds per km

As per above complete the 15/15/15 segment straight through, programming it into your watch or hitting the lap key between sections.

As there are both short and longer trail races, the intensity of the set should mirror race day, as such for the shorter trail races complete the sets above but on similar terrain to your target race.

To clarify if your trail race is shorter in length, time wise, choose the set from above that best matches your cumulative finish time. (Is the time spent running approximate to your half marathon or your full marathon?) Whichever is closest, complete the appropriate set from above, but on similar terrain to your goal trail race.

The set following may be something you undertake if you plan on tacking a 100km ultra race.

40/40/40 – where each is a 40 minute block.

40 minutes Easy

40 minutes Steady

40 minutes Hard

With this set I recommend completing a 60 second walk between sections. In the above case aim to keep the 60 second walk separate to the 40 minute blocks. This allows you to compare the average pace achieved in each block without it being skewed by the 60 second walk. Keep in mind that as your terrain changes this can and likely will affect your average pace for each segment.

As you get closer to your race you can gradually increase the length of the 40 minute segments to one hour in length. Thus continuing to challenge yourself and more accurately matching the demands of race day, both in terms of the time and the energy demands required.

You are now equipped with the knowledge to be able to improve your race pacing and your pacing in training. If you find it difficult at first, don't worry, that just shows that you have more to gain than someone who nails it the first time. Don't be disheartened, stick with it, it just takes practice. And that just means more running, which certainly can't be a bad thing, right?

I'll leave you with a challenge, two action points that I want you to undertake. While you now have the knowledge to improve your running, you have to implement it for this information to be of any use.

The two things I want you to commit to are:

1. Practising a pacing set at least once in your training. After, make sure you review your data to see how you went.
2. Leading into your next race I want you to go in with a pacing plan as outlined above, try it at least once, I think you will be surprised at what you are capable of.

Let me know how you go! I get a real buzz out of hearing how people have improved their running.

Stay safe.

Happy training.

See you out running

Nick Muxlow – The Ultra Coach

The Ultra Journey

#theultrajourney

