# Marathon Training Tips

Article by Jim Burke



Once the domain of elite and serious runners only, undertaking a marathon is becoming much more common nowadays, either as a tick box moment or simply as a way of setting a new and exciting challenge to test yourself. As Physiotherapists, we see a number of people each year with injuries resulting from their attempt to get ready for a marathon event. The most common injuries presenting to the clinic include patellofemoral pain , Achilles tendon injuries, shin splints, and stress fractures. The cause of these injuries may range from errors in preparation, poor biomechanics or even inappropriate footwear.

This article attempts to address some of the pitfalls of marathon training to help you minimise the risk of injury and to safely get you through the big day in the best time and shape possible.

## Prepare.

A growing number of people who are attempting to complete a marathon are not regular or serious runners. This brings with it a number of potential dangers. 'Use it or lose it', your body is an incredibly adaptable machine, it will respond to increased stresses and loads on the muscle and tissues by building stronger, more durable tissue. Unfortunately, this process does require both time and the appropriate rest between episodes of increased loads. If you have not been running large distances either within a particular training run or over the week, your body will not have wasted energy to maintain the type of tissue required to cope with these loads and distances.

When we increase our training, effectively we overload and on a microscopic level cause small areas of failure of the tissue. In response to this, the body is stimulated to build stronger tissue to cope with the load. This process is one that does require us to rest the tissue in question between episodes of loading, in order to allow the body to make these running repairs. For this reason, it is advisable that those who are novice runners, run no more than 4 times per week, allowing a rest day in between each run for your body to do its thing.

## Follow a plan.

Your tissue will undergo extensive re-modelling during your preparation. As mentioned above, this is a process that takes time. Following a marathon training plan where you start with shorter runs and progressively increase these is a great way of ensuring that you do not over train. The rule of 10% is one of the most tried and proven rules of running training. Basically this states that you should never increase your total weekly kms by more than 10% each week. It is generally considered sensible to incorporate both longer runs (as mentioned previously) and interval training that incorporates speed work into your program.

Your longer runs stress both your tissues as well as your energy storage systems. The ability to perform prolonged endurance exercise is strongly influenced by the amount of glycogen (glycogen = stored form of glucose/fuel source) stored in muscles, with fatigue coinciding with glycogen depletion. The marathon requires the largest glycogen storage capacity



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possible, a very efficient capacity to make new glucose and a very effective use of fat. Longer runs serve as a stimulus to the body by depleting the muscle's glycogen stores and forcing them to rely on fat stores as a fuel source. The human body responds by synthesising and storing more than what was previously present thus increasing your endurance. Your shorter faster runs allow you to stress your cardiovascular system, while allowing your muscles and tissues time to rest and recover.
There is no one ideal plan for every runner. More experienced runners will be able to commence at a much higher mileage for each week as well as a faster pace and will require less rest days. A more novice runner needs to start much smaller and slower and give themselves time to recover.
Novice and experienced marathon training plans can be found here.

## Prehab don't rehab!

Many of the injuries presenting to Physiotherapy clinics are as a result of poor biomechanics. The sheer volume of repetition of the same load to the joints and tissues in distance running, requires a reasonable level of strength and endurance in the muscles of your hips and legs. Many people commence their training without the appropriate strength and control required to avoid injury over large distances.

Consulting a Physiotherapist before commencing training or early in your training schedule will allow you to identify any areas of potential weakness and enable you to set up a prehab program so that you can correct these issues before they result in injury. Preparing for a marathon is a huge commitment and there is nothing more heart breaking than falling apart before you even get to the start line.

## Fuel your body.

Much attention is placed on the physical side of training and preparation, however adequate nutrition is extremely important. You wouldn't fill a race car with cheap dirty fuel so why do that with your body? Plan your diet to ensure that it contains a good supply of fruit and vegetables for the vitamins and minerals needed to fuel your body as well as quality protein to assist in building and repairing your muscles. Excessive alcohol and caffeine consumption depletes and may dehydrate your body so try to minimise these while training.

## Listen to your body.

The most common feature of developing a serious marathon training injury is ignoring your body and running through pain. The pain systems in your body are designed to alert you to injury. By its nature, distance running for many is not a comfortable process, alarm bells should be ringing however, if you start to experience ongoing strong or sharp pain while running, or if significant discomfort persists after you have ceased running. In this case, immediately consult your Physiotherapist as there are often simple issues that can be addressed to prevent the problem from developing into an injury that will stop you from training.



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