

## Getting the balance right

Naturally, the majority of your training for a marathon will comprise running. One of the key principles of exercise is that of 'specificity'. Put simply, it states that **your training should be relevant and appropriate to the activity you want to compete in**. This ensures that the process of adaptation which takes place within the body during training is pertinent to the specific needs of running.

It all sounds simple enough, to prepare for a long distance run you need to do a lot of running. But it would be an oversight to ignore the benefits of **cross training** (engaging in two or more sports or types of exercise in order to improve fitness or performance in your main sport). That's because the training and preparation for a marathon is a delicate balancing act.



Putting in the hard miles has multiple benefits. Not least it can help increase your metabolism, improve bone density, enhance your body's ability to utilize oxygen and store glycogen, and even lower your resting heart rate. Crucially, it helps you prepare mentally for the psychological challenge of a long-distance run.

But focusing all your energy solely on running can have drawbacks. Running is a continuous, repetitive, weight-bearing form of exercise. By its very nature, it causes micro damage and inflammation in the muscles. As long as healing and repair is kept in check by proper rest, this inflammation need not be problematic. However, without sufficient time to recuperate, inflammation and swelling in joints and muscles can lead to chronic overuse injuries.

Another potential downside of restricting your training solely to running, is the impact it can have on your immune system. Whilst shorter duration runs can help bolster your immune system, longer and more challenging runs can weaken it. That's because during the longer and harder runs your body churns out more of the stress hormone cortisol. After a 16-mile run, your body's immune system can be compromised for up to 3 days afterwards!

## How cross-training can help

Committing a day or two per week to other forms of exercise will provide you with some crucial benefits. It can help you to restore a more balanced all-round level of fitness, and give you a psychological break from the rigours of running. At the same time, it can help to take pressure off overworked joints whilst allowing you to retain a good level of cardio-vascular fitness.

Some forms of cross-training compliment long-distant running better than others. Here are some of the more beneficial options:

### Strength training

This should be top of your list because some amount of strength training is almost essential to prepare yourself for the marathon. It can add strength and power to your running, and is also a good way to enhance your running economy.

Look to get expert advice on the most crucial muscles to strengthen. This will vary from person to person. But whatever you do, don't overlook some of the smaller muscle groups such as the adductors and abductors. Strengthening these areas can help add stability to your running stride.

And whilst you are in the gym, consider using **the elliptical machine**. It is a great exercise for mimicking the running action, and improving your aerobic capacity, but it is non-weight-bearing, and will ease the load on your joints.



### Aqua jogging or swimming

Aqua-jogging involves replicating the movement of a runner in the deep water of a swimming pool. A buoyancy belt is utilized to help maintain an upright position. It is a technique that has long been used as a method of rehabilitation, but it can also be used as an option for training. Swimming is a less closely related activity. However, swimming is also another good option for taking the impact off joints and can be good for stretching out limbs and mobilizing the joints.





## Cycling or Stair-climber

While cycling tends to recruit very different muscle fibres than those used in running, there is one specific situation where it can be a very useful form of cross-training. Many runners tend to overwork their hamstrings, yet have relatively weak quadricep muscles. This strength imbalance can increase the likelihood of injury. Cycling, and also using a stair-climber in the gym, can help redress these imbalances, as both exercises put a significant demand on the muscles of the quadriceps.



To check whether you have any muscle imbalances that may affect your running, we highly recommend that you get yourself assessed by a [physiotherapist](#).

## Yoga and Pilates

Both Yoga and Pilates have numerous benefits for long distance runners. They can help improve your **flexibility**, correct your **posture** and develop your **core strength**. All of these factors will help improve your running efficiency.



Take, for example, the 'crescent moon' pose in yoga. It can help release tension in the lower back, and is also a great way to stretch out your [hip flexors](#). Flexibility in these muscles is crucial, because it helps you to maximise your stride length. This can make a significant difference over the many thousands of strides you take during the marathon.

Good posture and spinal alignment will help you maintain a more balanced running motion. This helps you conserve energy, and limits wasted effort.

Developing core strength is really worthwhile. When you become fatigued during long runs, the body's "trunk" tends to rotate excessively. Trunk rotation is wasted energy. Working on developing core strength causes the trunk muscles to collectively stabilise the spine. This helps you run more smoothly, even when you are tired.

Finally, practicing a few basic [yoga](#) moves after a long run can be restorative too. They can help reduce swelling in the legs, boost circulation and initiate the recovery process.



## Hiking

As an occasional break, consider a hike instead of a run. It can act as a relief from the repeated pounding on tarmac. And if you make the effort to get out into the country it can be a great stress-reliever.



Furthermore, if you hike on reasonably challenging terrain it can help challenge the tendons, ligaments and muscles that are less challenged during normal runs. Your body needs variety to keep the joints firing fluidly, especially in areas such as the ankles.

Hiking can also help you get used to long periods of time on your feet, but with a decreased risk of injury compared to successive long runs. A solid three or four-hour hike can be surprisingly challenging and help to build up your resolve for an endurance event.

Whatever your training regime, remember to take days to rest between exercises, to allow the body to recover from these different stresses.

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## Issue 5: Focus Area – Gluteal Injury

Injuries involving the glutes are less common than those that affect the knees and lower leg. But when they do happen, they can be seriously debilitating and uncomfortable. What is more, injured, tired or fatigued glute muscles can cause associated pain in the lower back or legs, and lead to poor balance.

### Anatomy of the Glutes

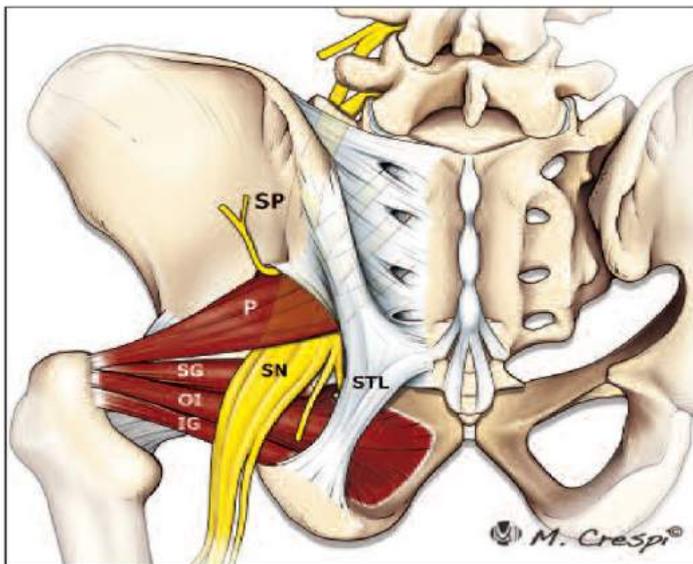
The gluteal muscles wrap around the back of the pelvis. The **gluteus maximus** is the large, thick muscle at the surface of the buttocks. Its main role is extension of the thigh, and ideally, as your running form improves, it will become more responsible for propelling you forward during your running action.

The **gluteus medius** is situated directly under the gluteal maximus, and the **gluteus minimus** sits directly below the gluteus medius. Both the smaller glute muscles originate at the ilium (part of the hip) and attach to the femur.

A healthy and well-functioning gluteus medius is of vital importance to runners. It plays a pivotal role in stabilising both the hip and the knee.

### Deep Gluteal Syndrome (including Sciatica and Piriformis complaints)

Deep Gluteal Syndrome is a pain or numbness in your bottom, that can sometimes go down the back of your leg. This pain can be caused by muscles or blood vessels pressing in the nerve. Commonly known complaints such as “**sciatica**” and “**painful piriformis**” are part of the group of injuries known as, and more recently labelled as, Deep Gluteal Syndrome.



**Symptoms:** The pain is usually just on one side (but in some instances can manifest bilaterally). Pain will intensify when you are sitting, or when you try to sit. You'll likely feel a tender and aching sensation in the buttock. The numbness often radiates down the back of the leg.

**Cause:** The condition is triggered by irritated muscles that put pressure on the [sciatic nerve](#). Sitting for long periods of time or exercising for extended periods are both possible causes. And the combination of hours spent at a desk followed by long periods of running (especially on hard surfaces) can create a potent mix. A physio will often be able to help determine the precise movement or posture that is triggering the complaint.

**Prevention:** If you start to feel a pain in the buttock area, ease off or stop running for a short period of time. In many cases the sensation will go away within two to three days, but if not, consult your doctor.

**Treatment:** In the initial stages, the area should be iced. Hot/cold treatment works in some cases. Stretch glutes and use ibuprofen gels for temporary relief. These gentle stretches, together with mild exercises and muscle relaxation, often aided by a [physiotherapist](#) when the treatment is too difficult or painful to self-administer, should help to get to the root of the problem.

## Next Issue

In the next issue we look at tapering, and how you should decrease your level of training as the Big Day approaches. In addition, we will give insights into possible injuries that can affect the hips and pelvis.

