

Running

Whilst running is an extremely popular past time the phrase “train to run don’t run to train” is very important to running success, or at least the avoidance of injury.



Running is attractive due to the ease, relative lack of cost, flexibility (the fact that it can slot into a busy schedule rather than having to attend at a specific time) and is self-paced.

There are a number of factors that should be taken into account with regards to fitness elements. Hip strength, a stable core, extended back and arm drive are all important aspects of running, irrespective of distance or ability.

Remember- ‘knowledge is power’ and ‘forewarned is forearmed!’

THE BIOMECHANICS OF RUNNING

There are 3 fundamental points to be aware of when thinking of running.

1. Limbs (arms & legs) are levers. Levers can accelerate quicker and more easily when they are shorter. Hence, when we sprint, we will increase knee flexion (our heel getting closer to our buttocks) than when we jog (with our heels only just getting beyond the height of our knees).
2. Both arms and legs (to a lesser extent) try to oscillate around our pelvis and trunk even though we are trying to move in a straight line (forwards). To resist these twisting forces, our core and trunk muscles need to be conditioned to resist this repetitive action throughout the run, if we are to remain biomechanically efficient and therefore, minimise the risk of injury.
3. Stand tall! It is very easy, especially when getting tired and heavy-legged to tilt at the waist- almost over-balancing to force the legs to work so you don’t face-plant. This is not good for your shoulders, lower back or hip flexors.

THE IMPACT OF FATIGUE

As with any physical activity, injury is more likely to happen when we are unable to control the deceleration phase of our muscles. Quite often in running, unless it is a rupture Achilles or torn calf, injuries are not felt until after we have stopped and adrenaline subsides. The reason for ‘train to run’ is to ensure our bodies are strong enough to counteract the forces of

momentum and to prevent overuse or misuse injuries (muscles being used too much or in the wrong way).

According to a review of studies held in 2015 collated by the National Institutes of Health from databases held by PubMed, EMBASE, CINAHL and Psych-Info there are 8 common running injuries: Runner's knee (Patellofemoral Pain), Achilles tendinopathy, IT band syndrome, Hamstring injuries, Plantar fasciitis, Shin Splints, Stress fractures and Ankle sprains. More in depth information regarding these injuries can be found [here](#).



In most instances, injury from recreational running is an indication of overtraining which can be a combination of training too hard and/or not allowing enough rest time for the body to adapt to the new demands being placed on it.

One word of caution regarding IT band syndrome. The IT band is on the outside of the thigh, running from the hip area to the outside of the knee (roughly where the seam would be on your jeans). This structure is fibrous, not elastic like the properties of a muscle. It should not be massaged or foam-rolled as the only sensation you will feel is pain...there is zero benefit and therefore it is a negative experience. There is hope however!

There is a muscle situated roughly where your pocket in your jeans is- it is called the TFL. When this is facilitated it shortens (contracts). As it is attached to the fibrous band that goes down the outside of the thigh, we can provide massage and stretching techniques to downregulate the nervous system which in turn will reduce the irritation of the tendon at the knee joint as the knee continually bends and straightens through running. If you experience any pain from running, [please get in touch](#).

WHERE TO START

If you are completely new to running then you can't go wrong following the NHS's guidance in their ['couch to 5K' programme](#).

If you feel able to run and wish to challenge yourself as an intermediate runner with the goal of sub-30 minutes for a 5km, then you can find an [8 week training programme here](#).

In normal times there are a number of public races that can be entered. You could even get the family involved in park runs as well as them being kinder under feet than tarmac! You can select runs that are in your area and they are free to enter. 5K runs happen on a Saturday and 2K runs for children up to 14 years of age happen on a Sunday. If this is of interest to you, [check out more information here](#).

As we stated at the beginning, if you wish to remain fit whilst running, it is not enough just to run. Conditioning for running (1-2 sessions a week) should also be included in any training programme. This will provide greater muscular endurance, so muscles do not get tired and activate inefficiently, leading to injury. There are many programmes available on the internet on YouTube. Ideally you will be working your back, abs, glutes, quads and hamstrings. [Here is one example from Runner's World](#).