

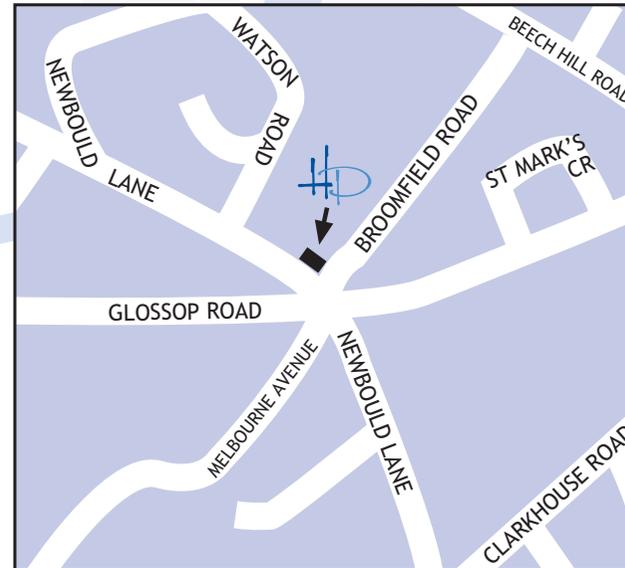


Prevention of Running Injuries

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Remember the final factor that influences injury rate: your inherited tissue type (they say you should select your parents carefully!). Some people can run for miles and never experience problems as they have excellent joints and soft tissues. Most do not have this luxury and so may have to consider the above points to remain injury free.

The latest evidence is that we 'rust out and not wear out' so we hope you carry on running and if you continue to have problems come and be assessed at the Hallamshire Physiotherapy clinic or call for advice.



Call for advice
or to make an appointment on:

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▶ **Run quietly**

If your running partner can hear you run over a mile away then you are probably hitting the ground too hard and this will increase the stresses on your joints. Practise walking quietly at home and then bring this into running (concentrate on controlling your heel strike and slowly rolling onto your toes).

With time your running partner will not hear you and this will certainly help if you try to overtake them!

▶ **Posture**

Your shoulders should be in front of your hips to maximise running efficiency (look at your standing posture from the side to assess your standing position).

▶ **Arm swing**

Arms should move when you run as this helps you rotate your trunk on your pelvis and this produces increased stride length and a more efficient running action.

▶ **Toe running**

If you run longer than 3K, avoid running on your toes as this can cause increased stress on your lower limb (we often see runners who constantly pull their calf as a result of running on their toes).

▶ **Vary your running**

By performing different activities, you help stop the development of stresses on certain tissues (for example, Achilles tendon, pain on the outside of the knee, anterior knee pain, anterior shin pain). Consider changing your running distance (slowly), speed, terrain and even try cross training.

It is not possible to cover all injuries in this sheet given the range of running injuries and the variation in clinical presentation, but it is intended to help the runner identify possible problems in their training.

This is for information only and not intended to be a self-treatment programme.

The following are the most common problems that we see in runners at the clinic:

▶ **Increasing training too rapidly**

Tissue needs time to adapt to increasing load and muscles require time to strengthen and new movement patterns need developing. If mileage is increased too rapidly problems will possibly occur.

This problem could be further exacerbated by other factors: increasing age, returning to training after a long rest period, changing to new running surfaces (e.g. fell, road, track) or hill work. It is recommended that training is increased no more than 10 percent each week, but this figure will vary depending on the above factors.

▶ **Overloading tendons**

Before discussing tendon problems it is important to define the common term, 'tendonitis', that is often used to describe this condition.

The 'itis' in 'tendonitis' refers to an inflamed tendon and it is thought that this is the cause of pain.

The latest research would disagree with this assumption and suggests that the tendon is not inflamed, but the pain is a result of break down in the tendon fibres caused by the repeated microtrauma (a more accurate term to describe the majority of tendon pathology is 'tendonosis').

Achilles tendonosis (pain in the long tendon over the posterior aspect of the ankle) is the most common problem seen in runners and is caused by overloading the tendon too quickly. The best way to manage this problem is to strengthen the calf muscles (gastrocnemius and soleus muscles) that attach via the Achilles tendon into the back of the heel. By strengthening these muscles the stresses on the tendon have been shown to reduce and help prevent, or treat, this painful condition.

▶ **Warm-up or stretch-or both!**

The evidence for the use of stretching in reducing injuries is weak and too much flexibility might actually cause more problems. The best advice before starting exercise is probably to perform that specific activity slowly and progressively to load the muscles and other soft tissues.



For runners, this means running at 50 percent maximum speed for 10 to 15 minutes and slowly increasing the pace before full training. The warm-up is very specific to your type of exercise, so if you cycle or climb, do the activity slowly for 10 to 15 minutes before increasing training. This allows time for the muscle to warm and slowly lengthen, but also allows time for you to rehearse the movement patterns you intend to use. Use stretching at the end of the exercise session as a means of cooling down.

▶ **Running shoes**



We are often asked about running shoes at the clinic and we usually recommend that the runner buys more than one pair of shoes and rotates them on a daily basis. By using two (or more) pairs of shoes the stresses on the lower limb are redistributed and help reduce specific loading on one area. We also recommend getting shoes fitted at a reputable shop such as 'Keep on Running' in Attercliffe that can individually assess your specific foot requirements.

The following comments are about running styles and how these factors might contribute to you having pain or limit your running efficiency (many runners who come to the clinic have pain, but reducing the stresses on the specific area often results in them running faster as well as alleviating their pain).

