

A BASRaT guide to safely start running

This running guide will benefit beginners and give tips to those already running

By **Andy Cornelius BSc (Hons) Sport Rehabilitator**
- Rehabilitation Specialist and Lead Running Coach at Synergy



Running is an increasingly popular way of keeping in shape and with the explosion of running events, more people are lacing up their trainers than ever before. Running is time efficient, cheap and has an active social community attached to it.

Unfortunately running has a bad reputation for causing injuries, despite studies showing you're no more likely to suffer from knee issues as a runner compared to being sedentary. Novice runners have been shown to be most at risk of picking up a running niggle – so how can you structure your running training without causing yourself problems?

A lot of information is available to help guide you in your running but often the contradicting opinions can be confusing. There are also many companies trying to sell you products and persuade you the latest gadget will make you a faster, fitter and less injured runner.

In this article we are going to try and dispel some myths, inform you of some easy steps to take to make sure you don't hurt yourself and give you the information you need if you do find yourself in the unfortunate situation of being injured.

Practical Tip: When it comes to buying trainers make sure you try before you buy and judge them on comfort

Equipment needed:

When you first start running, one of the great things about the sport is that you need very little. You may notice when you look at running products is that different companies have managed to turn everything you could possibly want into a 'running specific' version. From socks with woven in arch support to leggings which help your legs recover faster, pretty much every conceivable product has been engineered to apparently make running easier for you.

The main thing that most people worry about getting right is trainers. The type of trainer you need depends on the miles you will be covering, what terrain you plan to run on and how you run.

When you first start going out for initial runs you only need a basic pair of trainers, they must fit well, have at least a small amount of cushioning and a sturdy enough upper to hold the sole to your feet well without moving around.

Once you have decided running is for you and want to start increasing your weekly mileage to more than the occasional jog round the block, you may want to consider completing the runner's rite of passage and buy your first pair of running specific trainers. The best advice that can be given here is to try before you buy. Comfort has been shown to be the single most important factor in what trainer you should be buying, if you have no experience in choosing running trainers then prepare to be confused by categories such as structure, support, cushioning and trail trainers to name a few.

The best thing you can do is make the runners pilgrimage to your local running shop that either has a treadmill or allows you to run up and down the shop so that you can see how different trainers feel on your feet. Most shop staff are now well trained on finding the correct fit, support and grip you need. Beware of being forced into a pair which you are told suits your foot type if they do not feel comfortable – you are going to become very well acquainted with these shoes, so as mentioned previously go mainly on comfort (and then maybe colour!).

Other products such as clothing and accessories are great ways to make your running more comfortable and enjoyable, modern fabrics in running clothing are great for wearing for long periods and keeping you cool. Bottle carriers and pouches for your phone or iPod are useful additions to your collection, but there are just as many happy runners out there who run with the pure basics and are managing just fine so how far you want to take it is entirely up to you!

Training

Otherwise known as lacing up your trainers and actually getting out the front door for a run! In my experience this is the bit where most people make mistakes and are most likely to injure themselves by getting it wrong, much more than not having the right kit or not stretching enough.



There are many different variables to every training run. The most obvious is distance, when you first start out running this is the variable most people are interested in and look to improve on as quickly as possible, but how can you do this safely?

You may have heard of the 10% rule – this states that increases in weekly distance should be at a maximum of 10%. This is a simplistic way of ensuring you don't do too much too soon,

there are some exceptions to this rule but the evidence shows that once your distance starts to accumulate to more than 2-4 miles in a single run then increasing this too quickly is a big component to causing injuries.

Another variable that you need to be aware of in your runs is intensity

- the most common way of increasing intensity is by running faster. One of the most common training mistakes I see clinically is runners going out on every run and trying to run as far and as fast as possible, hence combining volume (mileage) and intensity (speed). This means that the body cannot adapt fast enough, as not only are they testing their body's ability to run for a long time but also its ability to sustain maximum effort. Putting their body through this amount of stress when it's not used to it, means eventually something has got to give, commonly causing the runner to get injured. This very commonly happens when runners try running with a faster friend and try desperately to keep up.

Practical Tip: Use the 10% rule to ensure you don't increase your distances too quickly



Practical Tip: Introduce variety into your training by using hills, track and interval sessions

A better way of introducing intensity into your program is to

try faster runs when you are planning on going out for a shorter run or in an 'interval' fashion meaning you only run faster for short bursts.

This means you still push the body to a point of stress so it adapts, but not too much that it breaks down and causes an injury. The intensity for these runs would be so that you need recovery time in order to complete the set this is called 'above threshold' as rest is needed between reps.

Other changes such as incorporating hills, running more often, running on a surface you are not used to or just trying a new type of training method such as track are all great ways of bringing variety into your training and getting the most effect from as little time as possible.

All of these however should be incorporated slowly – your body will always react to something novel causing aches and pains, this is normally a positive thing (once the initial aches have settled) as it means you're getting stronger, but an accumulation of too much too soon or not allowing your body to rest adequately can easily lead to injury.

Warm up

Warming up for easy or slow runs isn't always necessary unless you have a particular area that is feeling stiff or prone to injury if not warm before hand. However,

if you are planning on completing a higher intensity run or hilly run, it is wise to prepare the body beforehand with a few simple drills.

This can be achieved through light jogging to get the heart rate raised followed by simple warm up drills such as hopping, butt flicks or walking lunges. Once you are feeling a little looser start to introduce some faster runs gradually by completing a few approx. 50 metre runs which start slow and gradually build to a high effort. This will ensure the higher intensity training won't come as a surprise and cause an injury; a warm up lasting 10 minutes should be plenty.



Cool Down

Once you have finish your run it is time to recover! During this time incorporate some gentle stretching or foam rolling (if you have one), as both will help you feel less achy the next day. If you have had a hard run the day before, using light walking or even a short recovery run is a great way to help the legs recover, rather than just complete rest.

Ensure you have protein in your next meal to aid recovery, preferably within a couple of hours after your run.

Writing yourself an effective training plan

When writing training plans for my clients, the first run I will put into their week is their 'long run'. This will be their longest run of the week meaning in most cases it will be completed slowly (low intensity) and the aim is to train the body to spend time on their feet running, not to make them run faster, just to build endurance. The distance of this long run depends on experience (usually using the 10% rule) and goals. When completing long runs they should be run at an intensity called 'conversational pace' meaning you would be able to talk to someone next to you as not too out of breath.

Practical Tip: Build your training plan around your long run. This builds up endurance.

The rest of the training week depends on what they are trying to achieve, if they are looking to run shorter distances faster there will be more of an emphasis on shorter more powerful running. If they want to run their first marathon there will be less intensity and more volume. But the most important thing is that the training plan includes lots of variety.

A typical 3 runs a week program could look something like this:

1x Long run: Easy pace run designed to increase the ability to run for long periods.
(Intensity: conversational pace)

1x Hill session/interval session: High intensity session to develop power and maximal speed
(Intensity: above threshold)

1x Steady run: Medium intensity and distance run designed to work the body harder for longer periods (Intensity: Somewhere between conversational pace and above threshold)



Running Technique

In most other sports if we were trying to train to get better, we wouldn't just try to do the activity for increasingly longer periods or just repetitively try to do it faster, instead we would work on the technique of how to complete the activity to how it suits us best. With running however this is judged as less important which is why some runners struggle or keep getting injured.



Evidence for ensuring people have a good running technique is growing fast and being adopted by more and more practitioners. The common misconception is that there is a good technique everybody should strive for, however there are a set of principles which people should be aware of and use to their advantage.

Reducing impact is the only way of reducing 'load', which means that whereas changing the way people run in other ways only ever moves effort from one place to another,

reducing impact is the only way of asking less of the body. The easiest way to ensure you're not hitting the ground too hard is to listen to how much noise you make.

If you notice you are particularly noisy you might be achieving speed by reaching too far in front and as a result hitting the ground with high impact force, rather than landing as close to your centre of mass as possible meaning your forward momentum is maintained. One reason your centre of mass might be too far forward, causing you to impact out in front is because you run with poor posture. There is no such thing as a normal posture however your torso should be in line with your pelvis meaning you are creating a centre of mass underneath you and you are achieving good hip range of movement not inhibited by a pelvis in a poor position.

Practical Tip: Run with good posture by trying to stay relatively upright which helps to ensure your foot-strike isn't too far in front

Another important factor to consider in running technique is how much unnecessary movement is occurring and putting load through joints, which isn't advantageous, for instance a pelvis which twists and buckles with the effect of gravity. This can be seen by asking someone to run behind you and seeing if your pelvis drops or twists too much whilst you run, one of the main causes for this is a lack of single leg strength or poor strength throughout the hip and pelvis complex, see the strength training advice below.

Strength Training

Completing strength exercises as interventions in a training plan have been shown to be most effective in preventing injury and increasing performance.



Even more so than regular stretching, strength exercises have been shown to increase the load tolerance of tissues meaning they do not break down so readily when you run. The main muscle groups that have been shown to be most effective when trained are the legs and hips.

When implementing a strength program the best way to have the greatest effect is to ensure there is plenty of variety in your program to ensure you are asking your body to adapt in many different ways.

What it doesn't mean is that you will need a gym membership or suddenly have to be lifting weights like Arnie! Below are 3 simple strength exercises which are a great introduction into strength work for runners:

Single leg squat: <https://www.youtube.com/watch?v=DrkYeQxxRII>

Split squats: <https://www.youtube.com/watch?v=22WWi1wDsWc>

Single leg side reaching: <https://www.youtube.com/watch?v=BbnFacdUUMs>

What to do if you find yourself injured

So your running has been going great, you never thought you'd enjoy it but it's flown by, you're running faster and further than ever – then BANG! Injury!

What now? The first thing is don't assume you'll never be able to run again or you're not cut out for this running lark!

Instead the most important thing is that you are proactive and don't just count rest as treatment. Find a good local practitioner who will be able to assess your aches and pains and work out exactly what is going on and advise where needed, a great database of qualified practitioners can be found on the BASRaT website at BASRaT.org. If you're unsure why the injury happened, once you are on the road to recovery discuss why you may have got injured with your practitioner.

My checklist involves checking there were no sudden changes in training habits or equipment, strength, flexibility and stability were good enough throughout to ensure you were able to run the speeds and distances without injury, adequate rest was present to ensure structures could recover in time or previous injuries have been dealt with properly to avoid causing issue again or in a different place. Whatever the reason, be sure to get a good plan in place for a graded return to running.

Practical Tip: Practical Tips:

Use the 'Find a practitioner' database on the BASRaT website to find a qualified practitioner

Running is a fantastic activity suitable for all. It is time efficient, doesn't require much equipment and can be as competitive or non-competitive as you like. Get involved with local groups and events such as parkrun (parkrun.org) and you'll soon find yourself enjoying one of the fastest growing activities in the country.

Summary	
Equipment	Simple equipment is fine. Ensure your trainers are comfortable and that you try before you buy.
Training	Introduce anything new gradually. Follow the '10%' rule and keep your training varied
Running Technique	Try to land with low impact and keep an upright body position
Strength Training	Little and often. Bodyweight exercises are fine and help condition you for the miles ahead
Warm up/Cool Down	Warm ups can be used to prepare the body by loosening tight areas or building readiness in areas prone to injury. Light stretching or foam rolling. Use light walks or runs if feeling particularly achy. Warm up 'dynamically' and cool down with more static style stretching.
Injury	Don't just rest! Find a qualified practitioner on BASRaT.org

Andy Cornelius

Andy Cornelius is a BASRaT registered Sport Rehabilitator and a Rehabilitation Specialist and Lead Running Coach. Andy graduated from St Mary's University in 2005 with a degree in Sport Rehabilitation. He has worked with many different sports providing sports injury rehabilitation and soft tissue injury treatment. For the last six years he has also been providing care at a Premiership Football Club.

Andy specialises in assessing functionally to find movement impairments and dysfunctions present and then creates corrective exercise programs and drills to correct the movement patterns throughout the body to prevent injury and help performance. Andy mainly competes in triathlons during the summer season; he is also a keen mountain biker.

