



WE RUN

Running Technique: A Beginner's Guide



THE RIGHT TECHNIQUE

Developing good running technique can greatly improve your performance, helping you to run more efficiently and reduce your risk of injury.

Many runners make the mistake of not doing any work on technique. They simply lace up their trainers and head out for a run. They might focus on speed, endurance and strength (or, for many runners, simply distance and time), but form is something that is often neglected. As running is such a fundamental human movement, many recreational runners pay scant attention to assessing, monitoring and improving their running technique. For the overwhelming majority of runners, this is a mistake.

Running is a technical sport. If you are even remotely serious about improving your performance and reaching your potential as a runner, you need to consider technique and take time to work on it.

THE RIGHT TECHNIQUE

Good running technique can make a huge difference to your;

- ✔ Speed
- ✔ Endurance
- ✔ Energy usage
- ✔ Injury risk
- ✔ Enjoyment (most importantly!)

Fortunately, improving your running technique can also be interesting, fun and very rewarding!

What Does Good Running Technique Look Like?

We will look at the individual components of good running technique individually and in greater detail, but broadly speaking, an athlete with a good technique has a tall posture and high hips. The upper body should be relaxed with an efficient backwards driving arm action. The elbows should be bent at 90 degrees and hands should be relaxed. The foot should land naturally underneath the body, moving down and backwards. Rhythm, or cadence, should guide the speed and efficiency of the running action.

Practising technique and incorporating drills into your training is the best way to improve your form, and is an important factor in running comfortably and remaining niggly and injury-free. Here are some top tips to help.

Think Tall

When you run, think about your posture. Good posture is essential in running. If you run tall you will automatically lift your hips and cover more ground. It will help your breathing, and your movements will be more efficient. If you have a job which involves sitting for long hours, try to think about good posture throughout the day, not just when you run. This will reduce the risk of back, shoulder and neck pain. To improve your posture when you are running, imagine a piece of string attached to a helium balloon is pulling upwards from the top of your head. Look straight ahead, not down at the floor.



THE RIGHT TECHNIQUE

Running Drills

Specific drills should form part of every runner's training regime.



Performing running drills regularly will improve your running technique. The drills are designed to help your body adapt to the movement of running. They are specific to the sport and should be done after the warm up and before the main session. They help to correct poor technique and activate the muscles needed to run, as well as helping to improve co-ordination. Examples of popular running drills include fast feet, high knees and butt flicks/kicks.

Relaxed Running

Try to relax as much as possible when you run, and avoid tensing your body. Not only will you be able to enjoy the run, you'll also reduce the pressure on your body. Warming up effectively will help you to relax into the run and mobilise your joints - more on warming up later.

Arm Action

Having an efficient arm action can help with balance and speed. Remember to relax. Any tension in your back, shoulders and neck will have a negative impact on how you run. Include arm exercises in your warm up to help with mobility. If you feel yourself tensing up during a run or race, shake your arms out.

THE RIGHT TECHNIQUE



Faster Feet

To run faster, your feet need to turnover quickly, spending the least amount of time on the ground. There are a number of exercises you can do to increase efficiency and improve your landings. Skipping is one popular example. Make sure you alternate your feet and increase the skipping speed. When running, try to land as lightly as possible and be careful not to over-stride (where your foot lands in front of your knee).

Core Strength

[Building core strength can make a huge difference to running form.](#)

Core strength is very important in running. The core is the mid-part of the body including the abdominal muscles, glutes, back, hamstrings and quadriceps. The stronger your core, the more force you can exert on the ground. How you run is determined by strength and flexibility of particular muscle groups. By focusing on your core strength, you will soon notice gains in your running performance. Even when you are fatigued you will maintain your form, staying upright and strong to the end of your run.



Professional Feedback

Working with a qualified Running Coach is one of the best ways to get professional feedback on your running form. A knowledgeable Coach will be able to assess how you run and where you can improve. They will also be able to advise you on the best stretches, drills and exercises to do to develop your individual technique. Every runner is different, and everyone can benefit from a training programme specific to their needs.



“Runners often start out very keen to learn, but you have to keep on doing in order to improve at things, and running is no exception. Consistency is so important.”

**COACH IEVA, WE RUN COACH FOR WEST LONDON
AND THE SURROUNDING AREA**

Patience

It takes a lot of time and hard work to improve your technique, but it is well worth it. Technique really is an important aspect of training, and should not be ignored. It's also important to remember that even the most successful athletes have struggled with aspects of technique – think of Paula Radcliffe's nodding head and Haile Gebrselassie's school-book arm (pictured below).



It is possible to perform well without focusing on technique, but if you want to improve your performance and reduce your injury risk, then developing your form will certainly help. Running technique also happens to be pretty fascinating (at least we think so!), and gaining a better understanding of good technique and how it impacts on your running can open a whole new world of interest to fuel your running passion.



A Running Coach guides a client through a tailored warm up routine.

WARM UP & COOL DOWN

Warming up and cooling down are essential parts of training. While a good warm up gets your mind and body ready for exercise, the cool down will help with the recovery process. Together they'll help you to get the most out of your workout. We surveyed our team of hundreds of qualified Running Coaches and asked what runners most commonly neglect. Almost everyone said the same thing; warming up and cooling down is top of the list.

WARM UP & COOL DOWN



The Benefits Of Warming Up

During the warm up your heart rate will increase gradually, pumping blood around the body and getting oxygen to the working muscles. An effective warm up will mobilise your joints including your hips, shoulders and knees. It increases the amount of synovial fluid in your body, which helps lubricate your joints.

Warming up before training sessions and races will improve your performance and reduce your risk of injury. It will give your muscles, bones and joints time to adapt to the exercise gradually and gently. You'll be able to get into a running rhythm with a pace you can sustain for longer.

As well as activating the running muscles, a warm up is a good time to work on your weaker areas. Your Running Coach or Physiotherapist may have identified specific areas to strengthen. Taking time to do this means you will move better and more efficiently. If you don't warm up you risk pulling a muscle or experiencing severe muscle stiffness. Don't underestimate the benefit of a good warm up; it enhances performance and helps you reach your full potential.



Warming Up Misconceptions

Drills such as butt-kicks should form part of every runner's warm up routine.



Warming up is not just about running, but that's what many runners do. For a lot of runners, a warm up simply means running more slowly for a mile or two before going into the main session. While this approach will help your aerobic system, it won't develop your neuromuscular fitness (the communication between your brain and your muscles), which is necessary to activate the running muscles. The best way to develop this neuromuscular fitness is to include drills in your warm up. Drills require skill and coordination, stimulating the brain to communicate with and engage the muscle fibres needed for the main session. You will soon notice improvements in your technique, efficiency of movement, coordination, stride, power and strength.

Components Of A Warm Up

A good warm up should be both general and specific. The general warm up focuses on the aerobic system, raising the heart rate and increasing body temperature. The specific warm up improves neuromuscular activation. Basically, this part of the warm up will get your running-specific muscles firing. The warm up should include a variety of exercises including aerobic work, drills and technique. It should be progressive. If you are doing speed work in the main session, you should include faster bursts of running in the warm up. As a guide, your warm up should include:

- ✔ At least 5 - 10 minutes of jogging/easy paced running
- ✔ Dynamic stretches
- ✔ A combination of whole-body drills
- ✔ Strides. These are runs over 30 to 60m at a faster pace

Dynamic Movement, Not Static

The warm up should include a variety of running-specific dynamic stretches and mobility exercises. These are controlled, repetitive movements that cover the full range of motion. In this part of the warm up you will flex, extend and rotate your joints. Examples of dynamic stretches include arm rotation, hip circles, lunges and leg swings.



Leg Swings



Hip Circles



Arm Rotations



Knee To Elbows

Dynamic stretches improve range of motion, as well as increasing heart rate, blood circulation and body temperature. Use small movements for the first few repetitions, before slowly starting to increase the range of motion. Current evidence suggests that the traditional static stretches, where you hold a muscle in a fixed position (e.g. in a hamstring stretch) should be done at the end of the session, not the beginning.



“If you’re going to do one thing to improve your running, do a warm up. It doesn’t have to be fancy. And don’t think you’re not good enough to warm up; everybody needs to warm up - whatever standard you’re at, your performance will improve by warming up.”

COACH MARTIN, WE RUN COACH FOR WORCESTERSHIRE, BIRMINGHAM AND THE SURROUNDING AREA



The Cool Down

Static stretches should be completed at the end of each session

After a workout, make sure you take time to cool down. The cool down returns your body to its resting state. It's all about the recovery process and preparing for your next workout. You need to finish your run feeling energised, so you look forward to your next session. An effective cool down will also reduce the risk of muscle stiffness in the days following exercise.

In the cool down it's important to bring your heart rate and body temperature down gradually to its resting level. Jogging or walking for five to 10 minutes will give your body the time it needs. The cool down helps the body to recover and remove the lactic acid and waste products that your muscles produced during the session.

Once your heart rate and body temperature have decreased, you can then begin your static stretches, which should always be done at the end of your workout. Static stretches help to lengthen the muscles to their normal range of movement and realign the muscle fibres. Hold each stretch for 8 to 12 seconds.



“When you go to the dentist, you always say “I don’t floss as often as I should”, and pretty much everyone I work with as a Coach says “I don’t stretch as often as I could”. It makes a massive difference to your recovery, how quickly you can be ready for your next session, and just keeping your muscles in tip-top shape.”

COACH ALEX, WE RUN COACH FOR READING AND THE SURROUNDING AREA



POSTURE

To reach your full potential in running, good posture is essential. But what makes for good posture?

Head Position

Upright posture, looking straight ahead.



Many runners look down when they run, focusing on their feet and looking at the ground. This curves the neck and back and means the body is not in alignment. Making a change to your head position can have a huge impact on your overall posture. The key is to keep your head position natural by looking ahead. Avoid looking at your feet. Don't tilt your head back and jut your chin out.

Shoulders

It's important to keep the shoulders and upper body as relaxed as possible. They should be level, not dipping to one side. Avoid tensing your shoulders, where your shoulders move higher towards your ears; they should be low and relaxed. This tends to get worse in the later stages of a run when we are fatigued and struggling to maintain good form. If you do feel tired, shake out your shoulders to relax. At every mile marker in a race, raise your shoulders to your ears, and then relax them into the correct position.

Torso and Thinking Tall

If your head and shoulders are positioned correctly, your torso and back will automatically straighten. Keep thinking tall. Maintaining a tall posture will make a huge difference to your form. To improve your posture, imagine a helium balloon is attached to your head, pulling your body higher. You'll automatically lift your hips and cover more ground. If you feel that you're starting to slouch during a run or race, take a deep breath. This will help to reset your position and straighten your back.

Hips

The hips are your centre of gravity, and help with balance and drive. You need to avoid tilting them. Imagine your pelvis is a bowl filled with water. The trick is to avoid tilting your pelvis and spilling the water. More detail on this in the next section.

Legs

To reach your potential as a runner, it's important to develop a quick leg turnover. You should have a slight knee lift, with a short stride and fast turnover. This will help you to run more efficiently. You should feel like you're gliding across the ground. Stride length often causes problems for distance runners. Make sure your feet land underneath the body and take care not to overextend. Your knee should be flexed slightly on impact to help absorb the force. If your lower leg is extended in front of your body, the knee can't take the impact. Your stride will be too long and you're risking injury.

Feet & Ankles

When you land, your foot should strike the ground and then quickly roll forward. As you push off, your ankle should be flexed to help push you forward. Fast feet drills can help improve the time it takes to push off. A top tip is to listen to the noise your feet make as they strike the floor. If they slap the ground loudly, you're probably not running as efficiently as you could be. Aim to run quietly with a bounce in your step.



ARMS

When you go for a run, your arms may be the last thing on your mind, but using them effectively can significantly increase your pace. If you're trying to run faster and get fitter, a good arm technique can help drive you to that PB.

As well as increasing your pace, efficient arms help with uphill and downhill running, keeping you balanced on the descent, while getting you to the top much faster. They can also improve your overall running form, so it really is worth spending time developing your arm action.



“A lot of people assume that the legs are the most important thing with running, and that the arms are just peripheral. The truth is that arm movement is intrinsically linked to leg movement, so developing good arm technique is vital for runners looking to improve.”

COACH PAUL, WE RUN COACH FOR TEESSIDE AND THE SURROUNDING AREA

Good Technique

Your arms should drive backwards with elbows at a ninety degree angle, and your hands should be relaxed. If your fists are clenched, your arms, shoulders and upper body will tense up. To run well, the upper body needs to be as relaxed as possible, without tension. Your fingers should also be relaxed; imagine you're holding a crisp between your thumb and finger without crushing it.

Poor Technique

Many runners make the mistake of swinging their arms from side to side. This causes the body to over rotate, which wastes energy and slows you down. It can also lead to injury. Take care not to let your arms cross the midline of the body.

Arms and Legs

The arms and legs work together. Try pumping your arms more, and your legs will follow. This is because the arm swing works in conjunction with leg stride. The next time you go for a run, try running without using your arms – drop them to your sides. As well as it feeling strange, you'll notice that your legs are working harder than normal. Bring the arms back in, and you'll feel a difference in your form, especially your knee lift and speed.

When it comes to running, the arms are arguably as important as the lower body. Make sure you maximise their potential.

Arms not crossing over the midline.





HIPS

If you want to improve your form, the hips and core are a fantastic place to focus. By strengthening them you will improve your technique and speed while reducing your risk of injury.

To run well, you should be aiming to maintain good posture with high hips. Focus on running tall. As we discussed earlier, thinking of a helium balloon with a piece of string attached to your head, pulling your body upright, is a helpful way to correct running posture. By making this small change, your hips drive forward and you cover more ground. You can test this by walking a set distance and counting the number of steps you take. Repeat the exercise, but this time think about the helium balloon technique and your posture. The number of steps you take should reduce. In a race, when you're tired, your form naturally tends to suffer. If you are able to maintain your form and posture, you will see huge improvements in your running.

HIPS

The hips are important because they give us balance and drive. They connect our core muscles and our legs. If the hips are not moving efficiently, the legs will not have the power or speed necessary to run well. With hips forward, your knee drive will automatically improve.



Many runners are not aware of how fundamental the hips are to running. If runners can understand how to work on their hips and use them more effectively, they will improve their running efficiency”

COACH VICTOR, WE RUN COACH FOR CENTRAL LONDON

Spillage

Your pelvis needs to be stable, aligned with the hips, and under your torso. Think of your pelvis as a bucket filled with water. The muscles in your front and back are responsible for keeping the bucket steady. The goal is to keep the bucket controlled so there is no spillage forwards, backwards or from the sides. Many runners spill out of the front, twisting their hips forward and arching their back, which means they lose energy and are increasing the chances of injury. By keeping the pelvis stable, you will notice an increase in power as your legs drive your body forwards.



Glute Activation

Functionally strong and active glute muscles are essential in running. They are the powerhouse for an efficient running movement. If you don't have strong glutes, you are risking injury. Runners with weak glutes are typically not able to maintain their posture for long periods, their technique suffers, and other muscles tend to compensate, often leading to injury. To improve, it's not just about strengthening the muscles; it's about using them when you are running. Learning to do this can take time, but it is possible. Incorporate technique work into your regular training routine. Taking time to develop your flexibility, coordination, strength and skill will mean you can maintain your posture and technique, becoming more effective for longer.



“One thing I see very commonly, a thing that most runners neglect is working their glutes - so people not really using their butts”

**COACH ANGELA, WE RUN COACH FOR
HERTFORDSHIRE AND THE SURROUNDING AREA**

Sitting Back On The Hips

Many runners have the problem of sitting back on their hips. The pelvis tilts forwards and the hips are pushed back, placing a lot of strain on the hips and back. This is usually caused because of a weak core, tight hip flexors or because the pelvis isn't aligned. Strengthening the core can make a huge difference, reducing the risk of back or hip problems.

Not Driving With The Hips

Not driving with the hips reduces the length of your stride and the power in the running movement. Runners who don't drive with the hips rely on the quads (front of the thighs) and the hip flexors, rather than engaging the glutes and hamstrings (back of the thighs). To improve, focus on improving mobility and pelvic stability by stretching the quad muscles and hip flexors.

HIPS

Dropping The Hips

Strength exercises designed specifically for runners can help.



Some runners drop their hips when they run simply because the pelvis lacks stability. The adductors and abductors are not strong enough to keep the pelvis level. Runners with this problem may struggle with lower back, leg or foot problems.

Lifestyle Habits

Many muscle imbalances are caused because of our lifestyle habits. Sitting for long periods of time, whether in the car or the office, causes inflexibilities and weaknesses in our muscles. When we run, these muscle imbalances become even more noticeable. Throughout the day, try to think about improving your posture, and take regular breaks from sitting. Classes such as Yoga or Pilates are useful to help rebalance the muscles, and are also great for flexibility and relaxation.

Top Tips

To improve the position of your hips, try rolling your hips underneath you, so that your bottom isn't sticking out. Do this throughout the day, not just when you are running.

Squatting is a great exercise for the hips. Focus on squeezing the glutes at the top of the squat and pushing with the hips. Going as low as you can in the squat will help engage the glute muscles.

Functional Strength

The hips are important in running, but don't despair if your form is less than perfect. The good news is that by incorporating running-specific strength exercises into your training, you will soon notice improvements.



Heel-striking (exaggerated for illustrative purposes!)

FOOT STRIKE

With the rise in popularity of barefoot and minimalist running shoes over the past few years, more and more runners are focusing on their feet. There's been a lot of debate about what type of foot strike is more efficient for endurance running. But just how important is foot strike and what difference does it make to your running?

Types Of Foot Strike

There are three main types of foot strike: heel, mid-foot and forefoot. A heel strike, where your heel hits the ground first, is the most common type of foot strike in runners. The problem with heel striking is that it can stop your momentum – if the foot lands in front of your body, it acts as a brake. Landing on your heel could cause pain or injury, as a result of the hard impact. The heel is unable to take the full impact so much of the force is transmitted through the leg and into the knee and hip.

In a mid-foot strike most of the impact is taken by the forefoot, the ball of your foot. This means that the heel only slightly touches the ground. The mid-foot strike is generally preferred because there is a lower impact when your foot makes contact with the ground.

In a forefoot strike it is the outside edge of the forefoot that hits the ground first. It's preferred over the heel strike and is the type of foot strike more common with runners who are running at a faster pace. The problem is that it places stress on the calves and Achilles tendon, which could lead to injury.

Landing with the foot closer beneath the centre of mass.



Good Running Technique

To run efficiently and effectively, try to stay upright with a slight tilt forwards. Your arms should drive backwards with the elbows at ninety degrees. Your upper body should be relaxed with no rotation. Aim for shorter strides rather than long strides where the knee is extended. The foot should land below the waist.

Top Tips

If you are heel striking you may be over-striding. To help improve your running, try taking shorter strides, focusing on your cadence (the number of steps per minute - more on this later). By working on cadence many runners soon notice an improvement in technique and foot strike. A good tip is to imagine you are floating across the ground, making little impact. Your foot should touch the floor before immediately lifting again. Remember that how you plant your feet depends on lots of other factors including your running shoes, speed and the terrain you are running on.

Changing Your Foot Strike

Before changing your foot strike, try increasing your running cadence. It's also worth spending time on strength, conditioning and flexibility. It is possible to change your foot-strike, but it should be done with caution. Changing from a heel to a forefoot strike will place greater stress on your calves and Achilles tendons. Transition injuries are common, so it's important to take your time. If you are keen to try barefoot and minimalist running, make sure you introduce any changes gradually. This gives your body time to adapt to the new style and footwear. It could be helpful to seek advice from a qualified Running Coach or physiotherapist as they will be able to help and advise you on your individual technique and how to develop without risking injury.



CADENCE

Cadence is the number of times your foot strikes the ground every minute. For runners, the magic number is 180 steps per minute, a figure identified by the famous running coach, Jack Daniels. For recreational runners, cadence usually falls between 160 and 170 steps per minute. To improve your running, working on your cadence could make you faster.

Get Your Feet Moving

Pushing off from the ground is what drives the running movement and propels you forward. It makes sense that the faster you can get your feet off the ground, the faster you will go. Some elite runners strike the ground more than 200 times per minute at their fastest. Remember that cadence is also determined by your height, weight, fitness, length of your legs and your stride length.

Measuring Your Cadence

Many watches now measure your cadence automatically. If you don't have a watch with this function, you can measure your cadence manually. Simply count the number of times each foot strikes the ground in a minute. Alternatively, you can focus on one foot only, and count how many times that foot hits the ground in a minute (to make the counting easier), then multiply that number by two to calculate your cadence. Try to measure your cadence during a variety of runs and races. You'll notice that it's higher in a race or speed session than on an everyday training run. If your cadence is below 180 in a 5km race, don't despair. It's possible to give your cadence a boost.

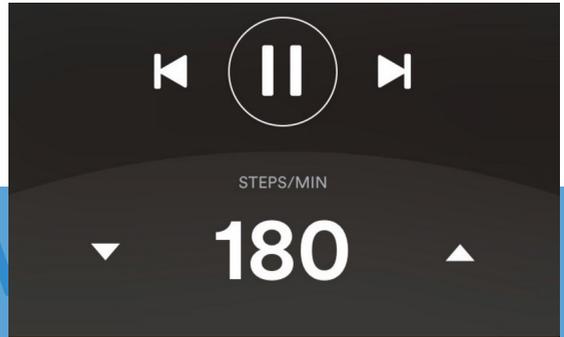
Increasing Your Cadence

Increasing cadence takes time and patience and should be done gradually, but can make a big difference. Here are a few ways you can introduce a faster cadence into your training.



Metronome

A metronome, app or playlist can help increase your cadence



Simple metronomes are inexpensive, and there are many free metronome apps which allow you to select a specific number of beats per minute. You could use this during a run, trying to match your cadence to the beat of the metronome. As you try to keep in time, you'll naturally start to take shorter, faster strides. Doing this allows your body to get used to the faster rhythm. If you don't have a metronome, you can also use music with the desired number of beats per minute - Spotify has specific running playlists that allow you to input the desired beats per minute and the app then generates a playlist of songs at that tempo for you to listen to.

Drills Before You Run

Before your run, take time to do drills. This will get your mind and body ready for the faster turnover. Bounce on the spot to the desired number of beats per minute. You can develop this into a jog on the spot, then focus on lifting the knees, all to the desired tempo.

Fast Feet

Run a set distance (around 10-20m) focusing on taking short, fast strides. The aim is to get your feet off the ground as quickly as possible. Have a recovery before going again. Repeat the exercise four times.

Fartlek

During your run, incorporate some bursts faster-paced running. This is known as fartlek, or speed-play. You can run between lampposts or other landmarks, or time yourself, but aim to run reps of around 30 seconds to one minute at roughly your 5km race pace. As you run, focus on your cadence. Try to measure this too. You'll soon notice improvements.

Downhill Speed Work

Many runners neglect downhill speed work, but it is useful. Try doing four downhill sprints over a distance of around 200m. As you run down the hill, gradually increase your speed so you're at your maximum pace at the bottom. Walk up the hill to recover, and then repeat. Be especially careful not to fall or trip during this kind of training!

Cadence and Injury Prevention

Research suggests that cadence has a part to play in injury prevention. If you run with a faster cadence, you're likely to change your form. You're more likely to strike the floor with the mid-part of your foot, and because your strides are shorter, you're less likely to over-stride (where the foot lands out in front of the body). Not only does overstriding slow you down, but it can also lead to injury. Running with a cadence of around 180 steps per minute can help alleviate this risk.

IMPROVE YOUR RUNNING

If you're a recreational runner looking to improve, remain injury-free and enjoy running more, then working on running technique is vital. Good running technique is not a destination; it's a continuous process, and changes to running technique often take time to embed and feel natural.

We hope this introductory handbook has provided a useful insight into some of the foundational elements of good running technique. This guide is by no means complete or comprehensive; instead it is designed to generate a basic understanding and, hopefully, to ignite an interest in learning more.

Most importantly, remember that every runner is different, and there are no 'one size fits all' solutions. Our team of qualified Running Coaches work with hundreds of runners every week, and we know from experience that no two runners are the same! Working one-to-one with a qualified Running Coach is the gold-standard for improving your running, and it is our mission to bring the benefits of professional one-to-one running coaching to recreational runners of all abilities.

Visit the We Run website for more details of our Running Coaching services, which include:

- ✔ Tailored Running Training Plans
- ✔ Online Running Coaching
- ✔ Our Running Analysis Service: The Runner's MOT
- ✔ One-to-one Running Coaching (our most popular service)

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