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This one: Running technique
Next: Technology

These notes usually aim to keep things simple, because marathon training is like tennis – up to the very highest level, success comes from making as few mistakes as possible. If you reduce the complications and the number of things on which you depend, you reduce the range of potential mistakes. Simple is good.

But there is one useful complication, and that's to consider your running technique or 'form'. Running isn't simply about putting one foot in front of another. Or rather, it is, but it's a learnt skill and it takes effort and practice to move as efficiently as possible, getting the most forward motion from your work.

In the marathon, you'll take perhaps 40,000 steps (many more during training). If you can make each one marginally less stressful on your body, and slightly more efficient, there's potential to make the entire process more comfortable. Put another way, if there's an major inefficiency or point of strain in your running action, that's going to get in the way (and could well be something that turns into an injury over time).

Think about the whole chain

Many shops offer something they call 'gait analysis'. This can be useful and is definitely worth taking up. They are primarily thinking about your feet, because they sell shoes (and possibly insoles or orthotics). They should help you find shoes that fit and suit how you impact on the ground now, and that's valuable.¹

But an in-store 'gait analysis' isn't necessarily looking at the wider picture. A coach or a physio (or indeed a runner) would ideally ask slightly different questions, because the way in which your feet land is just the outcome of everything else – arms, hips, head, cadence *etc.* The foot strike is just the end of a chain of movement, not something which happens in isolation.

¹ A good shop will patiently look at your action and make suggestions. Take your existing running shoes as the wear pattern can provide useful info. Remember your feet might be different sizes, they might be narrow or wide, and they can change over time (especially for new runners). It's not always ideal to get what you had before, or to ask for a specific brand. If you feel they're just trying to sell you expensive shoes you don't need, move on. And if you've got decent service, don't then buy on the web to save a few £££. Give your business to the people who've helped you. Personally I rate Run & Become (stores in London, Edinburgh and Cardiff) but you could also try Up & Running, Runners Need, or maybe there's an independent option near you.

Even if you pay no attention to your technique, your movement will still evolve as you go through the training period because your body will change. It's a dynamic situation, so even if you've been told certain things in the past, they aren't fixed forever.

So I'd encourage you to always pay attention to how you move, and work to develop an effective, efficient (and non-injury-creating) way of running. Become a better runner by becoming a better runner.

Free speed and other benefits

Technique is not just a topic for elite runners, and possibly they have a naturally efficient running form. The rest of us can also benefit hugely. If we can move 5% more efficiently, that's much easier than becoming 5% fitter. Based on an average London Marathon time of 4h30, that's a 15 min difference, just from a little attention and maybe 15 minutes of focus per week. So, you could run faster for no extra effort, and free speed is never a bad thing!

Or you could run at the same speed with less effort, which means you may enjoy running more and do more training. Or you could run further than before because you're putting less strain on your body. Perhaps the biggest benefit is the indirect one. It's not necessarily that you move in a way that's faster at the time. But by minimising the stress on your body, you minimise the time lost to niggles or something more serious. And that's how you find performance gains on the big day.

We're all different – but there are common elements

This is not to say that everyone should run in an identical way. 'Right' and 'wrong' aren't really the words. Different approaches make sense for different distances and surfaces, and of course we all have different bodies. Some people have longer legs, more flexibility, unequal sides, or some other peculiarity. Everyone also has a history of previous injuries, time in a particular environment (driving, hunched over a keyboard etc.) or other sports which have created a pattern of strengths and limitations. Nobody is perfect, and if you look at the elites, there are some unusual movements – Paula's head-bob, Haile's elbow-waggle (often put down to running to school with a bag). But there are some technical points that are recommended by UK Athletics, and I'll outline five here.

1. Arms driving backwards

There's a saying along the lines of 'you run on your feet, but with your arms'. Aim for roughly 90 degrees at the elbows and drive your arms backwards – as though you're elbowing somebody who is chasing you, or driving a nail into a wall behind you. Loosen your chest and shoulders before running, so your arms can move freely (especially if you drive a lot, or work on a laptop).



Running is about moving forwards, not sideways. So don't swing your arms side to side across your chest (as though rocking a baby). Try not to twist at the shoulders. And don't simply open and close your elbows – all that does is give a bicep workout.

2. Hips high and open



Particularly if you spend a long time sitting down, your hips can get tight. That means your legs aren't free to extend behind you when you run – so your stride is restricted. If you can open your hips and get that extension, you'll get more value from every stride. But don't throw your legs out in front of you to get a longer stride – focus on it happening out the back, with your glutes engaged.

And for your legs to have space to do this, try to keep your hips high and balanced – try not to sit into your hips.

3. A steady head

Again, the aim is to be moving forwards, so up-and-down movement is potentially going to waste a lot of energy. And it also means that after a couple of hours, your neck and shoulders get tense from absorbing the impact every stride. Your head weighs about 5kg so that's a lot to support if it's bouncing up and down.

Instead, try to have your head fairly level as you run, and look forwards rather than down on the ground. (Unless you're running over muddy fields or tree roots, in which case you should use your eyes to see what's underfoot!).



4. Separate feet, landing under the hips not out in front



If you imagine having a line along which you're trying to run, aim to have your feet landing on their own side of the line – rather than both landing on top of the line, or even crossing it ('scissoring'). Think of each foot having its own lane, then your hips won't swing side to side (which can create problems like IT band syndrome – a common injury for people as they build up their mileage).

Also, try to avoid impacting on your heels every stride – this puts a shock through the legs, and can slow you down because you're braking a little with each step. You don't have to be on your toes, but aim for your feet landing underneath you (rather than out in front), and your heel just tapping down

lightly as the last bit of contact, rather than landing with a bump at the start. As with the point on hips, think of your running happening behind you (rear wheel drive) rather than out in front.

If you are 'heel-striking' then experiment with your cadence (the number of times your foot hits the ground in a minute). There's no single number which works for everyone, but if you're sitting at 160 or below, there's probably going to be a benefit from speeding things up a bit.²

5. Be Quiet

Try to run 'quietly' – meaning that you are breathing deeply into your stomach rather than gasping for air, and your feet are landing lightly and smoothly. If you can take some of the strain and impact out of your action, that's going to help a lot.



If in doubt, smile. When you smile, you relax. When you relax, you're more efficient³.

Make small changes

These are five things to consider working on. But don't expect instant perfection and don't make huge changes – your body is used to moving a certain way, and a sudden shift could mean things no longer move in sync. There's a slight risk of picking up an injury if you run hard while also trying to make radical changes. Aim for small adjustments over a few weeks. Experiment to see which element could make a difference for you. And think about one thing at a time. Don't focus on head, hips, arms and feet at once, because that means you're not actually focusing on any of them. Maybe before a run, just tell yourself which one thing you're going to focus on. I've done a graphic at the end, which keen people might cut out and turn into cards. Maybe pick one at random, to give you something to think about for that run.

If you can find adjustments and improvements during your training, you won't need to think about it too much when it comes to race day. Your body will have learnt to move more efficiently and with less stress, and that could really help.

² <https://www.runnersworld.co.za/training/what-is-my-running-cadence-and-should-i-care/> discusses the topic.

³ This is a deliberate tactic for Eliud Kipchoge and others. <https://www.outsideonline.com/2256666/smiling-makes-you-more-efficient-runner>. Plus it means your race photos are fit for public consumption.

When to do it

There are lots of opportunities within the training mix for working on technique:

- Warming up and cooling down
- 'Drills' – when you rehearse and focus on your movement patterns⁴
- Recovery runs or long slow runs

For faster efforts or intervals, technique still matters – many coaches argue that technique is best learnt through sprinting, because to run fast you *have* to be efficient. That's another reason to have speedwork in your training mix, as a technical session as much as a fitness workout.

Getting feedback

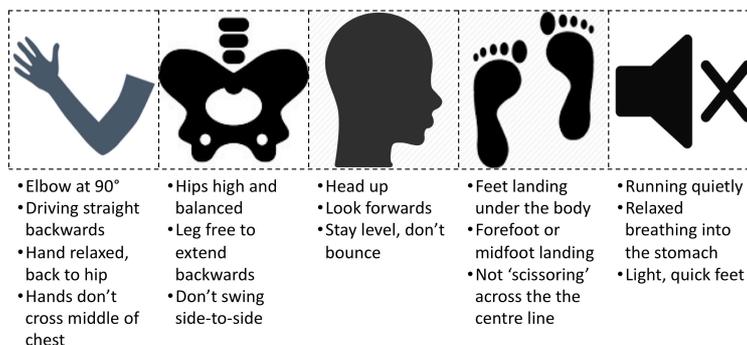
Take opportunities to get feedback. Even if you don't try to change anything, it can be useful to know how you move naturally. There are lots of ways to do this:

- A friend with a camera/video
- Race photos
- Other runners
- Coaches
- Spectators
- A shop window, as you run past
- Even your own shadow

Don't be afraid to ask – it's not about people telling you what you're doing 'wrong'. Just ask them to say what they see. What angle are your elbows, do your hands cross the centre line? However, if you can access a coach (e.g. through a club) they can give detailed feedback and make suggestions.

Don't be scared to play with your running technique – regardless of whether you get the free speed, it could mean you avoid injuries and find training (and the race) less painful! The usual three points to finish with:

- **No matter how fast you are, small changes could make a big difference.**
- **Make time to play with your form and find what works for you**
- **Feedback is invaluable so don't be afraid to ask**



⁴ For one example: <https://www.youtube.com/watch?v=EhzzpZVMtI4>