



# The runner's MOT

Check you're fit to run using these four self-tests, complete with fixes from top physiotherapists

**T**he start of a new year is the perfect time to step back to assess whether or not your running body is as fit for purpose as you think. We asked leading physiotherapists to guide you through common niggles and problems that often inflict the recreational runner, and prescribe simple fixes that you can do at home. Each test should be performed on both legs. And if you experience severe pain with any of these tests, it's time to see an expert.



## PROBLEM 1 Tight feet and calves

'Having weak feet manifests itself as tightness,' says Duncan Mason, a chartered physiotherapist at Athlete Matters in Worsley, Greater Manchester. The problems often stem from focusing exclusively on running and neglecting the conditioning side. Wearing very cushioned shoes is a further cause as thick midsole foam reduces the stresses that strengthen the feet. Also, Mason says feet and calves can be tight in forefoot/midfoot strikers or those trying to switch running style.

### If not treated...

Plantar fasciitis is when tight calf muscles result in a prolonged and significant pronation of the foot, leading to over-stretching of the plantar fascia – a thick band of tissue that stretches from your heel to your midfoot bones.

### Test it

A gentle upward stretch of the toes will tell you if your feet are tight: your plantar fascia will feel stiff and flexibility will be limited. To test for tight calves, sit in a chair and lift your leg straight out in front of you. Point your toes towards the ceiling and then pull back towards your knee, so you feel a stretch in the calves. You should be able to bend your ankle to 100 degrees. If you can't, you have tight calves.

### Fix it

'Single-leg calf raises [pictured] are a great way to improve functional strength of the calf and foot,' says Mason. 'Drop into a mini squat with your left knee flexed at 45 degrees. Do your max number of full calf raises, moving only at the right foot and ankle.' Continue until quality's lost, then repeat on the other side. 'You should be able to do 30 reps a day,' says Mason.



## PROBLEM 2 Tight hamstrings

We've all been there – 10 miles into a half marathon and an invisible vice clamps on to the back of your thighs. With every stride it strengthens its grip. 'The causes of tight hamstrings include overuse, a lack of flexibility or a limited range of motion emanating from 40-plus hours tapping away on a keyboard,' says Claire Callaghan,

chartered physiotherapist at University of Bristol Sports Medicine Clinic.

### If not treated...

Because the hamstrings span the knee and hip joints, tightness can lead to pain in these areas and the lower back. Runners with tight hamstrings might notice they ride a bike with their knees splayed wide, exacerbating the situation further.

### Test it

'Lie down on your back,' says Callaghan. 'Pull your right thigh into your chest. Keep the thigh in the chest area and then extend your right knee, taking your foot toward the ceiling. The other leg remains straight on the floor. If your knee struggles to extend and you feel tightness or discomfort in the back of your upper left leg, your hamstrings are tight.'

### Fix it

A swift way to loosen hamstrings is to add dynamism to the self-diagnosis stretch. Do the exercise 10 times per day. 'You could also see a physio or running coach to check you're using your hip muscles correctly on the run,' says Callaghan. 'Small changes to ensure you're taking the weight on your standing leg correctly and extending your other leg can minimise tightness.'

## PROBLEM 3 Tight quadriceps

'One of the most common weaknesses for runners is in the quadriceps,' says Alison Rose, former physiotherapist to Kelly Holmes, and now keeping Jess Ennis-Hill and the Brownlee brothers on track. 'It's caused by overuse, lack of proper stretching – especially post-exercise – and in general by our modern sedentary lifestyle.'

### If not treated...

Tight quads cause your pelvis to tilt forward, which puts stress on your lower back. Continue running down that path and you'll experience chronic back pain and tight hamstrings. 'If one quad is tighter than the other, it can cause a torsion in the pelvis, too,' adds Rose. That means one side of the hip is



more rotated than the other, which can result in further back pain and painful buttocks.

### Test it

Lying on your side with right arm bent, head rested on it, and right knee bent at a right-angle, with your thigh level with your hips, pull your left leg by the ankle towards your bum with your left hand, as shown. This is the muscle being length-tested, and it should be long enough to allow your thigh to be in line with your trunk and

ideally with your heel touching your buttocks. If you're nowhere near reaching your bum, your quadriceps are too tight.

### Fix it

To remedy the problem, you will need to hold the test stretch for three sets of 30 seconds, every day. You should repeat several times if you're extremely tight. 'Foam rolling the quads will also address this weakness,' explains Rose. 'It helps lengthen the quad and is also useful before stretching.'

## PROBLEM 4 Tight hips



The hip provides the foundation for perfect running technique. It provides stability for the standing leg and boosts propulsion when looking for that extra gear. Typically, hip tightness is caused by our 21st-century lifestyle – in other words, too much sitting – repetitive use and weak glutes.

### If not treated...

'If there's a weakness or tightness in the hip area, it can lead to hip, lower back, iliotibial band and knee problems, too,' says David Barton, physiotherapist at Cobham and Weybridge Physiotherapy. 'These problems will be aggravated by an increase in running mileage.' A weakness of the hips can also pave the way for biomechanical issues like a pelvic tilt, which can cause bursitis. This is when a fluid-filled sac (bursa) on the outside of the top of the thigh bone becomes inflamed – often caused by repetitive movements of poor running technique.

### Test it

There are a few tests to self-diagnose but one of the most accurate is the 'Thomas test', pictured above. 'Lie back on a table with less than half your thighs off the edge,' explains Barton. 'Bring both knees towards your chest, keep one there and extend the other leg back down. If the underside of that thigh is even slightly off the table, it's a sign you're suffering from tight hip flexors.'

### Fix it

One of the most important stretches for increasing hip flexibility is the hip flexor stretch. 'Kneel on the leg that you want to stretch,' says Barton. 'Then lunge forward with your other leg, squeezing your glutes at the same time. Reach overhead towards the midline of your body with the arm on the same side as your kneeling leg. You should feel the stretch in the front of your hips and thighs. Hold the position for 30 seconds, relax and then repeat the move on the other side.'