

GOOD HEALTH

By **LOUISE ATKINSON**

THE image last week of German Chancellor Olaf Scholz wearing an eye patch and with scratches and bruises on his face presented a stark warning to all later-life runners. It was reported that 65-year-old Scholz tripped and fell while jogging.

The bad news for runners everywhere is that you are more likely to injure yourself — whether through a fall or otherwise — as you get older.

Although 'newbies' may be at more risk, the good news is there are ways you can protect yourself from harm so you can safely jog around the park into your 80s and beyond.

While a key study of 'masters runners' (those aged 35 and above) found that while running 'slows the inevitable age-related decline in aerobic function and muscular strength', you can't escape the 'inevitable effects of ageing'.

The over-50s show a 'greater susceptibility to running-related injury' — specifically to the hamstring (at the back of the thigh), the calf and Achilles tendon (which connects the calf muscle to the bottom of the foot), reported the journal *Sports Medicine and Arthroscopy Review* in 2019.

As Philip Conaghan, a professor of musculoskeletal medicine at the University of Leeds, explains: 'The average rate of any running-related injuries, from twisting a knee to falling and grazing your chin, is about 50 per cent in a year, which means you have a one-in-two chance of sustaining an injury when jogging. And this likelihood increases with age.'

This is partly due to the wear-and-tear from running on a body that is, with age, gradually becoming weaker and more vulnerable to damage. But it's also because too few recreational runners invest time and effort in strength and balance training, he says.

Another issue is that runners can neglect their upper body, thinking it's enough to run. But even if 'running brings you excellent cardiovascular fitness and strong bones in the lower body', it won't protect the bones of your upper body if you fall, he adds.

This is a particular concern for older women, as the loss of oestrogen with the menopause can lead to bone-thinning, 'which is how a stumble can manifest in a fractured wrist'.

One of the factors driving injury as we age is a change in how we move.

'Our muscles get smaller and weaker as we get older, which means thigh muscles are less efficient at lifting each leg, and calf muscles provide less propulsion to push you forwards,' says Professor Conaghan.

'This results in a stiffer gait and a shorter stride, which can make tripping more likely.'

ARUNNER'S stride length reduces by 20 per cent between the ages of 20 and 80, and concentric ankle power (where you push off when running) can reduce by as much as 47.9 per cent.

Injury is made more likely by the fact that from around the age of 30, the composition of our muscles changes, too.

All muscles have a combination of 'fast-twitch' fibres which produce strong, powerful muscle contractions, and 'slow-twitch fibres' useful for endurance activities, but the ageing process affects the fast-twitch fibres more dramatically than slow-twitch.

This is possibly because they are controlled by nerve cells that are more susceptible to oxidative stress — the process where harmful molecules called free radicals destroy healthy cells.

This means they die off more rapidly than the nerve cells controlling slow-twitch muscle fibres.

Losing fast-twitch muscle makes it harder for older runners to move

Last week the German chancellor was badly hurt after falling while jogging. With older runners far more likely to injure themselves, our expert guide to...



Running injury: Olaf Scholz pictured (below) sporting an eye patch

with age-related physiological changes means older runners are at greater risk of injury.

But there's no doubt that running is good for health, as studies led by Professor Alister Hart, a consultant orthopaedic surgeon at the Royal National Orthopaedic Hospital in London, confirm.

And while running is commonly thought to be 'bad' for the joints, in studies of recreational runners and cyclists aged 30 to 60, Professor Hart found that even in marathon runners, running may reduce the risk of osteoarthritis.

Professor Hart says the main difference between the injured and the uninjured is that the latter build their stamina gradually, and work to increase their strength and balance through regular and continued training.

'I'm all in favour of exercise,' he told Good Health. 'I tell my patients "motion is lotion" for the joints, and our studies show that if you train properly, running will not lead to a deterioration of existing problems, but will improve your muscle and bone strength in just a few months.'

As well as gradually building up your exercise regimen, a warm up is key for reducing injury risk.

The NHS recommends a six-minute warm up that includes marching on the spot and mobilising hip, knee and shoulder joints (see [nhs.uk](https://www.nhs.uk) 'how to warm up before exercising').

How to keep on RUNNING without TRIPPING once you hit 50

MEANWHILE, so as not to neglect your upper body, you need to do some weight training to help fight muscle wastage and strengthen the stabilising muscles. Professor Conaghan is a fan of Pilates, 'because it helps you build a strong core that is important for balance'; but he and many sports experts stress the importance of strength training generally.

A review of studies published in the *British Journal of Sports Medicine* in 2013 found strength training can reduce running injuries by up to 50 per cent.

Strength training not only helps preserve muscle mass, but it is the best way to maintain more of those fast-twitch fibres.

'People who strength train and work on maintaining as much fast-twitch muscle as possible tend to move better and with less effort as they age,' explains Maryke Louw.

She says strength training using some form of resistance — such as weights, bands or even your own bodyweight — is particularly important for women who are post-menopause.

'Running might be an excellent way to counter muscle and bone-loss in the hips and legs,' says Maryke Louw, 'but it cannot protect the bones in your upper body.'

'That requires upper-body strength training and making sure you get enough vitamin D [which aids the absorption of bone-protecting calcium] in winter,' she says.

Professor Conaghan adds there is no need to stop running over the age of 60: 'There are so many benefits for body, mind and overall health,' he says.

'And if you train properly and stay strong, running could help protect you against falls in later life, not make them more likely.'

quickly when needed, says Maryke Louw, a physiotherapist and sports injury specialist (and founder of *sports-injury-physio.com*). 'It might mean you're slower to react if your foot catches on something, which could make you more likely to fall,' she explains.

The ageing process affects balance, too.

Good balance depends on your brain and body getting visual cues (but eyesight diminishes with age), as well as sensation feedback from sensors in the joints in your ankles, knees, spine and neck (which also become less effective with age). These factors can affect balance, as well as

your ability to quickly correct your gait, extend your stride or lift your feet when running over uneven ground.

'To be fair to the German Chancellor,' says Maryke Louw, 'it is incredibly easy to catch your foot and trip, even on a 5mm dip in the pavement.'

According to Professor Conaghan, tripping is only part of the problem.

A review of studies, published in the *Journal of Sport and Health Science* in 2021, found the strongest risk factor for an injury was actually a previous injury — though the older the runner and the less running experience they

factors, too.

'There's nothing like a later-life jogging hobby to bring old and previously hidden arthritic hip and knee problems into sharp focus,' says Professor Conaghan.

'In its early stages, osteoarthritis is largely symptom free, but if you've been unaware of joint problems, the repetitive striking action of your feet on the ground can bring them to the fore.'

This is more likely if you're overweight (as it puts more force through your joints), have an otherwise sedentary lifestyle (which can lead to muscle weakness in the core, legs and buttocks), or if your gait is imbalanced as a result of pain or a previous injury.

Apart from the risk of falling, the extra load running puts on tendons and ligaments combined



DOCTOR TIKTOK Experts assess viral health trends

THIS WEEK: Sleep on your left-hand side

WHAT SOCIAL MEDIA SAYS: A post shared by 'herbal practitioner' @holisticali claims 'when we sleep on the left side, the stomach and its gastric juices remain lower than the oesophagus, thus reducing heartburn and digestive upsets. It also reduces pressure on the back, and is the ideal way for pregnant women to sleep'.

THE EXPERT'S VERDICT: 'As the stomach's natural position is on the left, it's suggested that lying on

your left side may help prevent the backflow of acid causing heartburn — but there are no conclusive studies,' says Dr Mohammed Khaki, an NHS GP in London. 'Sleeping on either side, with a pillow between your knees, aids the natural alignment of the spine and should feel more comfortable than sleeping on the stomach or back.'

'As for pregnancy, lying on your left stops the baby from pressing on the larger blood vessels and reducing blood flow to the foetus.'



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