



Is sitting the new smoking?

There's no running away from it: the more you sit, the poorer your health and the earlier you may die...
no matter how much you run, or how fit you are

Words

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You've probably heard that a sedentary lifestyle sat at a desk, behind a wheel or in front of the TV is seriously hazardous to your health. Maybe you googled it, heard it on the radio, or caught it on the 10 o'clock news. You possibly even know some specifics about percentage risk increases for heart disease, cancer, diabetes and

even depression. But, as a runner, you're probably sitting fairly comfortably – feeling immune from the modern-day health epidemic experts have gone as far as to christen 'sitting disease'.

As runners, surely we needn't stress about the dangers of sedentary living? Well, not so fast. Growing research shows that people who spend many hours of the day glued to their seats die earlier than those who sit less. Even if those sitters exercise.

'Until very recently, if you exercised for 60 minutes or more a day, you were considered physically active, case closed,' says Travis Saunders, an exercise physiologist at the Healthy Active Living and Obesity Research Group at Children's Hospital of Eastern Ontario, Canada. 'Now a consistent body of emerging research suggests it is entirely possible to meet current physical activity guidelines while still being incredibly sedentary, and that sitting increases your risk of death and disease, even if you are getting plenty of physical activity. It's a bit like smoking. Smoking is bad

for you even if you get lots of exercise. So is sitting too much.'

Unfortunately, it seems that outside of regularly scheduled exercise sessions, active people sit just as much as their couch-potato peers do. In a 2012 study published in the *International Journal of Behavioral Nutrition and Physical Activity*, researchers reported that people spent an average of 64 hours a week sitting, whether or not they exercised the recommended 150 minutes a week. That's more than nine hours a day of sitting, no matter how active they otherwise were.

'We were very surprised that even the highest level of exercise did not lead to a reduced time spent sitting,' says study author Professor Marc Hamilton. In fact, regular exercisers may actually make less effort to move outside their designated workout time. Research this year from Illinois State University, US, found that people are about 30 per cent less active overall on days when they exercise versus days they don't hit the road or the gym. Maybe they think they've worked out enough for one day. But experts say most people simply aren't running, walking or even just standing enough to counteract all the harm that results from sitting for eight or nine – or even 10 – hours a day.

SPUDS ON THE RUN

Unless you have a job that keeps you moving, most of your non-running time is probably spent sitting. And that makes

DON'T GET COMFORTABLE...
Running won't cushion you from the hard truths behind the armchair





AVOID *the* CHAIR

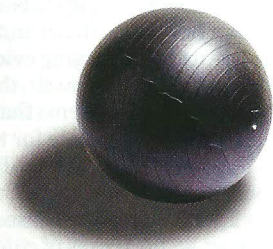
It can hurt your health *and* your running

IBAD > CHAIR

- ❶ Prolonged sitting reduces circulation to the brain, affecting creativity and mood.
- ❷ Hunching over a desk weakens your back muscles and tightens chest muscles. When you run, your arms may move back and forth across your chest, which can spur lower-body rotation that can lead to iliotibial (IT) band syndrome, and shin and foot pain, warns biomechanist Nikki Reiter.
- ❸ Certain leg muscles contain enzymes that keep blood fats in check. They go idle when you sit for too long, and that increases your risk of heart disease.
- ❹ Sedentary behaviour has been linked to various forms of cancer: breast, colon, lung and prostate.



- ❺ Just 20 minutes of slouching increases the laxity in your spinal ligaments, says Dr Stuart McGill. 'Sitting essentially puts your muscles to sleep.' It can take half an hour for the spine to regain stiffness, which you need to drive your hips and legs.
- ❻ The glutes lengthen when you sit for too long. That interferes with their ability to fire quickly or stabilise the pelvis on the run. Other muscles step in, which can lead to injury, says Reiter.
- ❼ When you're parked in a chair, your hip flexors tighten, decreasing the range of hip motion and robbing your ability to produce power and drive your knees, Reiter says.



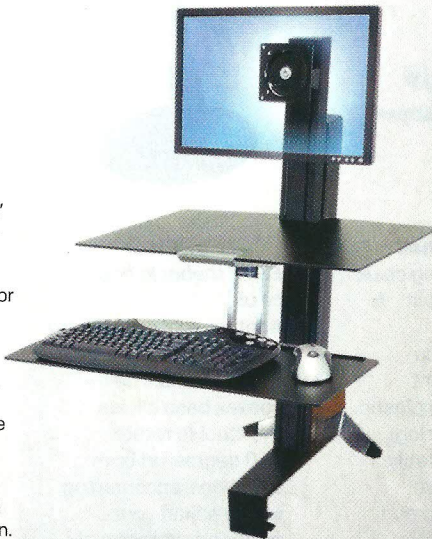
IBETTER > STABILITY BALL

Sitting on a stability ball won't score you a six-pack, but any extra movement you squeeze into your day is good, says strength and conditioning specialist Douglas Lentz. 'You'll engage more muscles than you would in a traditional office chair because you'll move around more,' he says. 'You'll also stand up more often because you're not as comfortable.'

IBEST > ADJUSTABLE DESK

The ideal scenario is an adjustable workstation that allows you to work on your feet as well as your seat. Why not just stand? Because being on your feet all day isn't necessarily good for you either, says Dr Alan Hedge, director of the Human Factors and Ergonomics Laboratory at Cornell University in the US. 'Prolonged standing places additional load on your circulatory system, and strain on your legs and feet,' he says. 'It's best to alternate between the two.'

The simplest way to transform a traditional desk is to place boxes under your monitor and keyboard. A high stool allows you to sit. For the best ergonomics, your keyboard should be at elbow height, your monitor at eye level. If you plan on standing for long periods, ergonomics expert Dr Alan Hedge recommends placing a footrest under your desk so you can give each foot a break throughout the day. A padded mat can also reduce stress on your legs and feet. And forget about standing all day in heels or unsupportive shoes: 'You need anti-fatigue footwear,' says Hedge. (Running shoes, anyone?) Or invest in Ergotron's WorkFit-S, pictured right (£468.99, amazon.co.uk), which sits on your desk and holds your keyboard and monitor so you can manually slide them up and down.



you an 'active couch potato' – a term coined by Australian researcher Dr Genevieve Healy of the University of Queensland to describe exercisers who sit for most of their day. If they aren't careful, she says, active couch potatoes face the same health risks as their completely inactive counterparts.

'Your body is designed to move,' says Hamilton. 'Sitting for an extended period causes your body to shut down at the metabolic level.' When your muscles, especially certain leg muscles, are immobile, your circulation slows. So

'YOUR BODY IS DESIGNED TO MOVE. SITTING FOR LONG PERIODS CAUSES IT TO SHUT DOWN METABOLICALLY'

you use less blood sugar and burn less fat, which increases your risk of heart disease and diabetes.

One study of 3,757 women found that for every two hours they sat in a given work day, their risk for developing diabetes went up by seven per cent, meaning their risk is 56 per cent higher on days they sit for eight hours. Another study, published in the *American Journal of Epidemiology* reports that someone who sits for more than six hours a day has an 18 per cent increased risk of dying from heart disease and a 7.8 per cent increased chance of dying from diabetes compared with someone who sits for three hours or less a day.

Running will of course do you an awful lot of good, says Healy, but if you spend the rest of your waking hours sitting, those health benefits depreciate. In a 12-year study of over 17,000 Canadians,



ON YOUR FEET!

Five simple ways to spend more time upright in the office

- 🔔 **Set reminders** Use the alarms on your computer and/or phone to prompt you to stand up every 20 minutes at work.
- 🏆 **Give yourself daily goals** Try getting in 5,000 (non-running) steps and download an app such as Garmin Fit to track your activity level throughout the day.
- 🗣️ **Walk and talk** Skip the stuffy conference room and try 'walking meetings' with colleagues.
- 💧 **Drink more** Not via a brisk walk to the Crown & Anchor, but by refilling your water bottle, which requires you to make more trips to the kitchen. And the loo.
- 📞 **Chat them up** Take phone calls while standing up. And if you have the space, pace around.

researchers found that the more time people spent sitting, the earlier they died – regardless of age, bodyweight, or how much they exercised.

Adding to the mounting evidence, Hamilton recently discovered that a key gene (called lipid phosphate phosphatase-1 or LPP1) that helps

'IT'S PRETTY SCARY THAT ONE OF OUR BODY'S KEY GENES IS SENSITIVE TO SITTING BUT RESISTANT TO EXERCISE'

prevent blood clotting and inflammation to keep your cardiovascular system healthy is significantly suppressed when you sit for a few hours. 'The shocker was that LPP1 was not impacted by exercise if the muscles were inactive most of the day,' Hamilton says. 'It's pretty scary to say that LPP1 is sensitive to sitting, but resistant to exercise.'

Heart disease and diabetes aren't the only health hazards active couch potatoes face. The American Institute for Cancer Research now links prolonged sitting with increased risk of both breast



SEATS OF POWER

Sometimes you just have to sit – and when you must, there are some dynamic designs that promote more movement than the traditional office chair



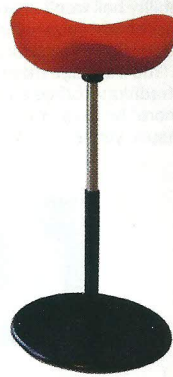
1 Gaiam Balance Ball Chair

£99, johnlewis.com
This chair/stability ball hybrid has a rounded, unstable surface that engages core muscles. Because it's attached to a base with wheels, it's easier to manoeuvre around a workspace, and the ball won't roll away when you're not using it.



2 HAG Capisco Chair

£496, wellworking.co.uk
This design is built for sit-to-stand workstations. The adjustable-height chair's moulded plastic seat allows your legs to hang comfortably, producing a more natural hip angle and encouraging better circulation in your legs.



3 Varier Move Stool

£349, thebackshop.co.uk
Another seat specifically designed for adjustable workstations. The convex base allows the stool to rotate 360 degrees in both directions, encouraging you to adjust your position spontaneously while you work.

and colon cancers. 'Sitting time is emerging as a strong candidate for being a cancer risk factor in its own right,' says Dr Neville Owen, head of the Behavioral Epidemiology Laboratory at Australia's Baker IDI Heart and Diabetes Institute. 'Emerging evidence suggests that the longer you sit, the higher your risk. It also seems that exercising won't compensate for too much sitting.' According to the Alberta Health Services Cancer Care in Canada, inactivity is linked to 49,000 cases of breast cancer, 43,000 cases of colon cancer, 37,200 cases of lung cancer and 30,600 cases of prostate cancer a year.

As if that weren't enough to get you down, a 2013 survey of nearly 30,000 women found that those who sat for nine or more hours a day were more likely to be depressed than those who sat for less than six, because prolonged sitting reduces circulation, causing fewer feel-good hormones to reach your brain.

Scared out of your chair? Good. Because the remedy is as simple as standing up and taking activity breaks. Dr Stuart McGill, director of the Spine Biomechanics Laboratory at the University of Waterloo, Canada, says that interrupting your sedentary time as often as possible and making frequent posture changes is important. 'Even breaks as short as one minute can improve your health,' he says. Developing healthier habits will also

SITTING YOUR BUTT DOWN? Think twice and take a stand against this silent killer



improve your running performance, says Nikki Reiter, biomechanist with The Run S.M.A.R.T. Project. The combination of going for a run and then parking your bum for the rest of the day (or vice versa) could be a recipe for injury. 'The static sitting position can cause certain muscles to become tight or overstretched, neither of which is good for your running,' she says. Even if you've been for a really intense or long run, regular activity throughout the day will help your recovery. So stand up now: it's good for your body and mind. ☺

A STEP TOO FAR?

At a treadmill desk, runner Mark Remy tries to mix business with 'pleasure'

First comes the novelty: I'm working on a treadmill! Which for me, wore off in about 90 seconds. Then come the gawkers. If you use a treadmill desk in a public office space, people pause, ogle, inquire and joke. You can't blame them, but it's hard to focus when you feel like a sideshow attraction.

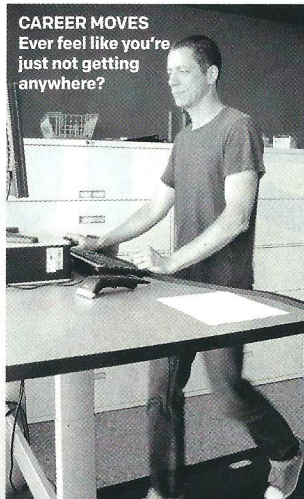
After a few days of working on one, the incline of my enthusiasm level was stuck at zero. But, hey, tedium is a small price to pay for keeping death at bay, right?

Because surely you know by now that sitting all day will kill you.

Really, if research is to be believed, if you sit too much you might as well have a 20-a-day habit.

This is why I've been using an adjustable stand-up desk for about two years now. When I feel like sitting, I lower the keyboard tray and monitor; when I want to stand, I raise it. Easy as pie. This arrangement has made a real difference to how I feel and maybe even how I run – my muscles feel looser and I get fewer knots in my shoulders and neck at the end of the day.

CAREER MOVES
Ever feel like you're just not getting anywhere?



You'd think that taking the next logical step – on to a treadmill workstation – would make me feel even better. Well, it certainly didn't hurt. But I didn't feel that walking while I worked helped me, say, recover quicker from a run or warm up better before one. It didn't do much for my creative juices either. Strolling outdoors might help me clear my head; running outdoors almost always does. But on a treadmill? Not so much.

Working on a treadmill wasn't *bad* as

such, but it did feel strange. There's a disconnect between the lower and upper halves of your body. Above the waist, you're typing. Below, you're taking a stroll. You feel like a mythological creature with the legs of a pedestrian and the torso of an office worker.

At the end of the two weeks, I can't say the treadmill experiment transformed my running, but the extra 400kcal it told me I burned every day certainly justified a post-work beer...



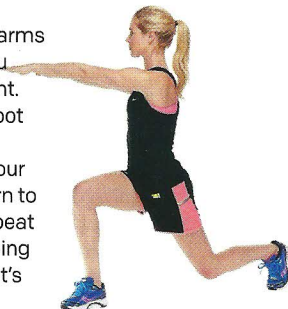
STRETCH IT OUT

Work these exercises into your seated day to boost your health – and your running

BEFORE YOU RUN

Activation X-Lunge

This primes your hamstrings, glutes and lower back. Stand with your arms out in front of you at shoulder height. Step your right foot to 2 o'clock and lunge, rotating your torso right. Return to the start, and repeat on the left, stepping to 10 o'clock. That's one rep; do 10.



IN YOUR OFFICE

Reach and extend

This and the next stretch reduce stress on your spine and open tight hips. Do them a few times a day. Stand barefoot and extend your arms overhead. Reach your palms towards the ceiling while bending back and taking several deep breaths.



Giant step stretch

Take a giant step back with your right foot and lower into a lunge. Bend your left knee and tuck your pelvis in. Raise your right arm to the side, then extend it overhead. Lean to the left from the waist. Hold for 10 seconds. Do 2-3 reps on each side.

