

Sitting is the New Smoking - Even for Runners

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



Image: Nick Ferrari

You've no doubt heard the news by now: A car-commuting, desk-bound, TV-watching lifestyle can be harmful to your health. All the time we spend parked behind a steering wheel, slumped over a keyboard, or kicked back in front of the tube is linked to increased risks of heart disease, diabetes, cancer, and even depression - to the point where experts have labeled this modern-day health epidemic the "sitting disease."

But wait, you're a runner. You needn't worry about the harms of sedentary living because you're active, right? A growing body of research shows that those who spend many hours of the day glued to a seat die at an earlier age than those who sit less - even if the sitters exercise.

"Until very recently, if you exercised for 60 minutes or more a day, you were considered physically active" says Travis Saunders, a Ph.D. student & certified exercise physiologist at the Healthy Active Living and Obesity Research Group at Children's Hospital of Eastern Ontario. "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, outside of regularly scheduled exercise sessions, active people sit just as much as their couch-potato peers. 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, 28 hours standing, and 11 hours milling about (non-exercise walking), 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 matter squat for reducing the time spent sitting," says study author Marc Hamilton, Ph.D., professor and director of the Inactivity Physiology Department at Pennington Biomedical Research Center in Baton Rouge, LA.

In fact, regular exercisers may make less of an effort to move outside their designated workout time. Research presented at the 2013 annual meeting of the American College of Sports Medicine from Illinois State University reports that people are about 30 percent 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 or walking or even just standing enough to counteract all the harm that can result from sitting eight or nine or 10 hours a day.

Spuds on the Run – the runner as an “active couch potato” Unless you have a job that keeps you moving, most of your non-running time is likely spent sitting. And that would make you an “*active couch potato*”- a term coined by Australian researcher Genevieve Healy, Ph.D., of the University of Queensland to describe exercisers who sit most of their day.

If runners aren't careful, these “active couch potatoes” face the same health risks as their completely inactive counterparts. “Your body is designed to move,” Hamilton says. “Sitting for an extended period of time causes your body to shut down at the metabolic level.” When your muscles - especially certain leg muscles - are immobile, your circulation slows. So, you use less blood sugar and burn less fat, which increases your risk of heart disease and diabetes.

A 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 7%, which means their risk is 56 % higher on days they sit for eight hours.

Another study published in the *American Journal of Epidemiology* reports that a man who sits more than six hours a day has an 18 percent increased risk of dying from heart disease and a 7.8 percent increased chance of dying from diabetes compared with someone who sits for three hours or less a day. Although running does much good for you, Healy says, if you spend the rest of your waking hours sitting, those health benefits depreciate. In a 12-year study of more than 17,000 Canadians, researchers found that the more time people spent sitting, the earlier they died—regardless of age, body weight, 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 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. "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 and colon cancers. "Sitting time is emerging as a strong candidate for being a cancer risk factor in its own right," says Neville Owen, Ph.D., 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 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 put you in a sad state, a 2013 survey of nearly 30,000 women found that those who sat nine or more hours a day were more likely to be depressed than those who sat fewer than six hours a day because prolonged sitting reduces circulation, causing fewer feel-good hormones to reach your brain.

Scared straight out of your chair? Good. Because the remedy can be as simple as standing up and taking activity breaks. Stuart McGill, Ph.D., director of the Spine Biomechanics Laboratory at the University of Waterloo 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 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 butt 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 went 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.