

# Desk workers - stand up for your health: Millions may be making themselves ill by spending their working lives sitting down



Standing up daily for an extra 90 minutes significantly lowers your chances of developing this serious metabolic disorder

If you are reading this sitting down then the chances are you are also increasing your risk of developing heart disease, blood clots on the brain and even certain types of cancer.

The latest evidence suggests that being seated for much of the day can also increase your risk of developing diabetes. However, standing up daily for an extra 90 minutes significantly lowers your chances of developing this serious metabolic disorder.

A growing body of research is finding that sitting down for extended periods may be one of the most dangerous things we do and that the mere act of standing up – rather than doing physical exercise – is perhaps the best antidote. Studies suggest that on average we spend about 9 or 10 hours a day sitting, either at the office, in the car or train, or in front of the television. But some people spend up to 16 hours a day sitting down – leaving little time for any other activity apart from sleep.

A study of two groups of men and women at risk of developing diabetes has found a link between levels of sugary glucose and fatty acids in the bloodstream – which are biochemical markers for diabetes – and the time spent sitting down.

The research, published in the journal *Diabetologica*, found a range of behaviours: some of the people in the study spent as little as three hours a day sitting, but most spent more than 10 hours in a chair, and a few regularly sat down for 16 hours a day. The conclusion was that people at risk of diabetes could be well advised to spend less time sitting and more time standing up, said Joseph Henson, a diabetes researcher at Leicester University. "The longer the time you spend sitting, the higher the amount of sugars and fats that accumulate in your bloodstream regardless of the time you spend exercising," Dr Henson said.

"There's a significant difference between people who sit a lot and those who don't. Those who spend the least time sitting have the lowest values of glucose and fats in their blood."

Scientists have found that a person's metabolic rate crashes to a minimum when sitting and that standing up for an extra three hours a day, even without exercising, would on average burn off about 3.6kg of fat a year. When a person is standing still they are using their muscles more than when they are sitting still. The muscles that keep someone standing up seem to produce more of the enzymes that break down sugar and fats in the bloodstream, Dr Henson said.

The current advice for lowering the risk of heart disease and type-2 diabetes is to exercise regularly but perhaps it is time to consider the suggestion of standing up more often, especially at work during the day, he said. "The approach requires a paradigm shift, so that individuals at high risk of developing type-2 diabetes think about the

balance of sedentary behaviour and physical activity throughout the day. Anything that breaks your sitting time would be beneficial because the more you move the better it is for you. But people should still exercise – standing should not be seen as a substitute for physical activity."

Office desks that allow people to stand up while working are becoming increasingly popular and could be an easy and simple way for people to lower the risk of developing chronic metabolic disorders such as diabetes, Dr Henson said. "Standing desks are a great initiative – I've got one myself. I reckon I spend about 80 per cent of my time at work standing up."

### **Standing room only: The upright tendency**

Working while standing up is nothing new. This was how most manual workers went about earning their living before the age of the office and the computer.

Standing up at a desk has been particularly popular among authors. Vladimir Nabokov, the author of *Lolita*, wrote on a set of index cards while standing, as did his compatriot Alexander Solzhenitsyn when he was in exile in the United States.

Meanwhile, Ernest Hemmingway preferred to type while standing in a pair of oversized loafers on the hide of a lesser kudu – a type of forest antelope. He said it made him feel more physical.

Winston Churchill liked to stand up while writing and editing, and there is even a brand of standing desk named after him. Donald Rumsfeld, another politician with a love of standing at work, has yet to receive the same honour. James Murdoch is a famous latter-day user of a waist-high office desk. He once suggested to his employees at News International that they should get rid of their chairs.

"They weren't very happy. It was very funny. They didn't know whether to take me seriously," he said.