

Sit-stand office desks cut daily sitting time and appear to boost job performance

October 11 2018



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Sit-stand workstations that allow employees to stand, as well as sit, while working on a computer reduce daily sitting time and appear to have a positive impact on job performance and psychological health, finds a

trial published by *The BMJ* today.

The results show that employees who used the workstations for 12 months, on average, reduced their sitting time by more than an hour a day, with potentially meaningful benefits.

High levels of sedentary behaviour (sitting) have been associated with an increased risk of chronic diseases (type 2 diabetes, heart disease, and some cancers) as well as death and have been shown to be detrimental for work related outcomes such as feelings of engagement and presenteeism (going to work despite illness).

Office workers are one of the most sedentary populations, spending 70-85% of time at work sitting, but studies looking at ways to reduce sitting in the workplace have been deemed low quality.

So a team of researchers based in the UK, with collaborators in Australia, set out to evaluate the impact of (Stand More AT (SMArT) Work) an intervention designed to reduce sitting time at work.

The trial involved 146 [office workers](#) based at the University Hospitals of Leicester NHS Trust of whom 77 were randomly assigned to the [intervention group](#) and 69 to the control group over a 12 month period.

The average age of participants was 41 years, 78% reported being of white European ethnicity, and the majority (80%) were women.

The intervention group were given a height adjustable workstation, a brief seminar with supporting leaflet, and workstation instructions with sitting and standing targets. They also received feedback on sitting and physical activity, an action planning and goal setting booklet, a self monitoring and prompt tool, and coaching sessions. The control group carried on working as usual.

Workers' sitting time was measured using a device worn on the thigh at the start of the study (baseline) and at 3, 6, and 12 months. Daily physical activity levels and questions about work (eg. [job performance](#), engagement) and health (eg. mood, quality of life) were also recorded.

At the start of the study, overall sitting time was 9.7 hours per day. The results show that sitting time was lower by 50.62 minutes per day at 3 months, 64.40 minutes per day at 6 months, and 82.39 minutes per day at 12 months in the intervention group compared with the [control group](#). Prolonged sitting time was also reduced in the intervention group.

The reduction in sitting was largely replaced by time spent standing rather than moving, as stepping time and physical activity remained unchanged.

The results also suggest improvements in job performance, work engagement, occupational fatigue, presenteeism, daily anxiety and quality of life, but no notable changes were found for job satisfaction, cognitive function, and sickness absence.

The authors say this was a well-designed trial and their results remained largely unchanged after further analyses. But they acknowledge that their findings may not apply to other organisations, and that self-reporting of work related outcomes may have affected the results.

Nevertheless, they say the SMArT Work successfully reduced sitting time over the short, medium, and longer term, and positive changes were observed in work related and [psychological health](#).

And they suggest future research should assess the longer term health benefits of displacing sitting with standing and how best to promote movement rather than just standing while at work.

In a linked editorial, Dr. Cindy Gray at the University of Glasgow says this is an important study that demonstrates lasting reductions in sedentary behaviour and other [work](#)-related benefits. But she questions the potential health gains of simply replacing sitting with standing. The intervention did not increase potentially more beneficial [physical activity](#).

She also questions SMArT Work's transferability and suitability for other types of employees, including shift workers, as well as its cost-effectiveness, which she says should be addressed in future research.

More information: Charlotte L Edwardson et al. Effectiveness of the Stand More AT (SMArT) Work intervention: cluster randomised controlled trial, *BMJ* (2018). [DOI: 10.1136/bmj.k3870](https://doi.org/10.1136/bmj.k3870)

Provided by British Medical Journal

Citation: Sit-stand office desks cut daily sitting time and appear to boost job performance (2018, October 11) retrieved 8 May 2024 from <https://medicalxpress.com/news/2018-10-sit-stand-office-desks-daily-boost.html>

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