

Stand, sit, stand — how I boosted my brain

The sit-stand desk, so popular in Silicon Valley, isn't just a gimmick. They have surprising benefits, finds **Harry Wallop**

Offices are subject to strange furniture fads, more so than our homes. In our domestic spaces, the most radical development over the past decade has been the emergence of those vintage Edison-style lightbulbs.

In that time, meanwhile, our offices have embraced open-plan working, glass boxes, breakout zones with ping-pong tables and bean bags, slides, meeting rooms with swings, bamboo walls, meditation pods and hammock rooms. One piece of workplace design, however, has taken hold above all others: the standing desk.

They first appeared in funky Silicon Valley companies that set up outposts in Britain. Google, inevitably, was one of the pioneers — along with giving workers free ice cream on Fridays. Soon stuffy investment banks, including Barclays, and law firms, such as Slaughter & May, installed them, although neither offered the gelato.

The trend hasn't escaped homeworkers. Ikea has a substantial range of so-called sit-stand desks that can be cranked up or down as the mood takes you. The thinking is that working standing up will cure your bad back, help you to lose weight and cut the risk of a heart attack.

Their detractors say they are a gimmick — a performative piece of furniture that a worker hopes will make him or her unsackable (“You can't get rid of me: your shoddy occupational health gave me a slipped disc”) and whose health benefits may have been exaggerated.

Those who mock standing desks may want to reconsider. New research has found that working standing up makes you smarter.

A report published today by University College London (UCL)

suggests that people performed much better at various memory, cognitive and creativity tests after spending five days using a sit-stand desk, one that gives you the option to stand for at least an hour or two each working day.

Vincent Walsh, the UCL professor of human brain research, studied 15 volunteers at the offices of a London-based charity (which doesn't want to be named). The staff usually sit to work. Walsh tested them before his experiment and then got them to spend a working week using a sit-stand desk. When he tested them at the end, he found they were twice as competent in their decision-making skills, and their language-based problem skills improved by 64 per cent. They also completed tasks measuring concentration and vigilance 10 per cent faster and made 45 per cent fewer mistakes.

These sound suspiciously large improvements to me — and, considering they were derived from studying only 15 people, how seriously should we think about flinging our old-fashioned desks on to the embers of our Bonfire Night pyre?

The other thing that makes me question the research is that it was commissioned by a company called Posturite, which supplies ergonomic

office furniture, from swivel chairs to those computer mice that resemble joysticks. Oh, and it has just developed a portable sit-stand desk, the **Oploft**.

Walsh is a plain-speaking, slightly scruffy academic from Oldham in Greater Manchester who has also worked as a sports psychologist for Team GB and Fulham Football Club. He good-humouredly bats away the idea that his research is compromised by Posturite paying for it. “Hand on heart — and it's something I say whenever I do projects such as this — you can buy the tests, but you can't

buy the results. Second, there is also a level of disinterest from me. I'm not being paid for these tests, only the university is. And third, I genuinely don't give a shit [about the results]," he says with a laugh. "We do a lot of these sorts of tests and we send home a lot of unhappy customers."

And as for the small sample size, he says: "The question is not the size of your sample, it's the power of your experiments. These are bombproof tests."

He then explains the intelligence tests the volunteers had to undertake. All were done at a computer. Some were the sort of verbal reasoning tests that children are asked at the 11-plus (see box). Others involved decision-making, such as the balloon test.

This is when subjects are shown a balloon — which represents a monetary value — and they have to click on the keyboard to make it inflate and increase its value from, say, £1.20 to £1.30. At any moment another click will make the balloon burst. You choose when to stop inflating and bank your money.

"It's designed to see how good you are at deciding when to cash in and when to push things," Walsh says. "It's a really good test of how well you will do on a diet, how well you will do on a drug withdrawal programme. It tests your impulsivity and when you will break."

He says a few years ago he did this test with a wingsuit flyer, one of those adrenaline junkies who jump out of aircraft without a parachute. "He was off the scale. He had no concept of holding back. Afterwards I had a conversation with him and I said, 'This is a serious task, not a game, and if you don't hold back you are going to die one of these days.'" He pauses before adding: "He died a few months later doing a wingsuit fly."

Walsh says that all the tests are designed so you cannot improve your performance by practising. This means there should have been no improvement between the first day and the fifth day. On the first day the volunteers won an average of £17.71, and by the fifth day it was £25.31, which is a 43 per cent improvement.

Other tests showed similar improvements after five days of standing up, especially the one that

required people to spot a red triangle or green square amid a sea of other coloured objects. "Colours and shapes are processed in a different part of the brain," Walsh says, explaining that it takes ten milliseconds for the two parts of the brain to talk to each other. "That's quite a long time. That's why

it's a difficult test — you're having to put together redness and squareness."

It is partly designed to analyse reaction times, and is something he has used on members of the Team GB fencing team, a sport that requires speedy synapses. "People often get faster over time, but that's what we call the gunslinger effect. You get faster, but you make more mistakes. It's a speed/accuracy trade-off."

The standing office workers, however, not only slightly improved their speed, they dramatically improved their accuracy. "I know, because I built my career on this test, that you can't get better with practice. Brain training is bullshit." By all means do a daily Sudoku, but don't think it's going to make you any cleverer.

What on earth is going on? How can standing up make such a difference?

Walsh laughs when I ask him to explain. "I really don't care," he says, pointing out that his job is to measure the if and how, not the why.

He uses a standing desk after a motorbike accident in which he broke

his back, dictating his reports into his computer rather than typing them. "It is 27 milliseconds from here to here," he says, pointing to his hand and then to his brain. "And it is 4 milliseconds from here to here," he adds, pointing to his brain and his mouth. "When I want to write something difficult or get an idea out, I don't take that 23-millisecond chance. I stand up and dictate it to my computer."

That's nothing to do with standing up, it's all to do with speaking rather than typing. He agrees. Then he says that he does have a theory why the week of standing up improved scores so much. It wasn't the standing. It was the fact that the workers had a choice.

"My personal take from this experiment — and I know nothing about ergonomics — is that if you give people autonomy so that they decide how they work, that will somehow refresh them. It's the same idea as

giving people the option of working from home. Giving people some autonomy over how they work nearly always leads to better results."

This would chime with research from elsewhere, particularly the University of Basle in Switzerland, which has found that workers who can set their own hours tend to be more productive, work longer hours and be happier than 9-to-5 wage slaves. Walsh's view that standing is a red herring is possibly not surprising. Standing in itself is not better than sitting. It's just that standing makes it more likely that you will move around, and it is the movement that leads to possible weight loss and improvement in aches and pains.

Researchers at the University of Exeter and UCL followed more than 5,000 people over a 16-year period and in 2015 found that sitting was no worse for you than standing, as long as you exercised regularly.

"It's static posture that is the enemy," says Ian Fletcher-Price, the founder of Posturite. "You can't say standing is better than sitting. What you need to do is vary your posture."

So, if you are reading this sitting down, wiggle about a bit, go and make a cup of tea. And demand from your boss the right to work anywhere, any time — even possibly standing up. posturite.co.uk/oploft

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