

Get Up, Stand Up

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We have all been guilty of it. Bottoms plonked unceremoniously in a chair, we hunch our shoulders, slouch our lower backs, cross our legs and cradle a telephone between chin and ear. Most desk workers are ergonomic disaster zones, but poor posture, neck and shoulder pain, or even varicose veins are the least of our worries when it comes to slumping for eight hours a day in our chairs.

Even those who diligently run or walk every morning or slave it out in the gym several days a week can be classified as living a sedentary lifestyle if they spend the majority of their waking hours sitting down at the office, heightening risk factors for heart disease, diabetes, and even some cancers.

An increasing amount of research is emerging on the dangers of sitting down for long periods of time, prompting some Australian workplaces to radically restructure their workstation design, leading to surprising gains in productivity, energy levels among employees and even slimmer waistlines.

New research by the Melbourne-based Baker IDI Heart and Diabetes Institute, published last week in *The International Journal of Behavioural Nutrition and Physical Activity*, studied the physical activity levels of 193 employees working in offices, call centres and customer service jobs, comparing activity over work and non-work days and between working and nonworking hours. It found a staggering 77 per cent of the employees' time was spent being sedentary during working hours. Even worse, that sedentary work time involved a substantial proportion of time spent in prolonged sedentary bouts of 20 minutes or more, during which the body effectively goes into metabolic shut-down.

Report co-author David Dunstan said even just the act of standing up briefly, breaking the sedentary bout, can be enough to ward off total metabolic stagnation. Latest research on the blood pressure of people who took a short walk every 20 minutes as opposed to those who stayed sitting had shown drops in blood pressure over the course of one day equivalent to the drops seen after months of aerobic exercise.

"When we stand, our muscles have to contract to stop us falling flat on our face," Dunstan says.

"We engage our muscles when we're standing and even more when we ambulate (walk).

"And our muscles have a very important role in that they are regulators of many of the body's physiological processes.

"Our muscle contractions assist the body to take up glucose and use it for energy. The more muscle contractions we have, the more effective our body is."

The lack of glucose uptake among highly sedentary people is the direct link between a sedentary lifestyle and diabetes. There are also adverse musculoskeletal effects on those who sit for prolonged periods including neck pain and low back pain, says University of Sydney faculty of Health Sciences researcher and occupational health and rehabilitation physiotherapist Karin Griffiths.

"People often think that low back pain is limited to people in manual work, but there's actually other research that shows ... people in desk jobs may be at greater risk of back pain than people in manual jobs," Griffiths says.

"Physiotherapists often like to say that the best posture is the next posture. It's the change in the posture and task variability that's important, whether it's sitting-to-standing or just walking a metre."

At the Australia Broadcasting Corporation's Sydney headquarters, radio presenters have said goodbye to the long-held practice of sitting down in front of their fluffy microphones.

Presenters who work within 702 ABC Sydney's main studio now stand up on the job, moving around between conversations with guests and as they monitor an array of computer screens that deliver traffic information, tweet streams and show rundowns.

Drive radio presenter Richard Glover has become something of an evangelist for the benefits of standing up at work, and has lost 4kg in three months without changing any other aspect of his lifestyle.

"I thought I'd get sore feet, and I thought it would be tiring," Glover says. Almost straight away I realised that wasn't the case. I completely have lost that 5 o'clock slump in energy. I feel much more energised.

"This is a radio-specific thing, but I feel like my breathing is much better, there's less strain on my throat, there's a column of air under what I'm saying rather than your lungs being all kind of slumped in," Glover says.

Macquarie Group is another workplace that incorporates standing-up desks as part of a new workplace design introduced at its Banking and Financial Services offices in Sydney's Shelley Street, as part of an "activity-based working" policy.

Workers move between library-style settings and open desks throughout the day depending on the type of work they're doing. Desks are height adjustable and laptops are used. Employees' extensions divert to Blackberries or workers can log in to desk phones. The activity-base working environment means a lot more bodily mobility among the workforce.

"You have so much more freedom," says Macquarie Group associate director Kristen Costandi. "You can get up and move, if you need quiet space you can find that, if you need to work with different teams you can easily sit together."

Costandi says the motivation for the workplace design was not health benefits for workers, but that has been a side effect.

"I don't think that was part of the thinking that went into why we did it," she says. "For us it was more about enabling people to work together more easily."

Companies that sell height adjustable desks have seen a large increase in sales recently. Officeworks has even responded to increasing demand from those who prefer to stand up at a desk by stocking an adjustable desk stand that allows people to elevate the height of their computer at an ordinary height desk so that they can stand up and work.

Even those who swear they are allergic to exercise can improve their health by increasing mobility throughout the day through standing up more often or taking frequent breaks from the desk.

Those who hit the pavement before spending eight or nine hours at a desk job should not give up their aerobic exercise routine in favour of a short stroll every 20 minutes.

"The 65 million dollar question is what level of exercise is needed to offset the effect of sitting for eight or nine hours a day," Dunstan says.

"The answer is we don't know."