

Sitting ducks

NEW STUDY: How our office chairs are slowly killing us

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SITTING down is about to join smoking and junk food on the list of vices that increase your risk of diabetes and heart disease.

New Australian research shows that half-an-hour in the gym will not make up for the waist-expanding damage caused by spending the rest of the day sitting.

But the good news is that pottering about the house or gently walking around the office while on the phone might be enough to keep you fit.

The study, which will appear in the April issue of *Diabetes Care*, joins the growing body of evidence suggesting too much sitting might undo the benefits of exercise.

The study measured the intensity of physical activity in 168 subjects over seven days. It found that, regardless of how much moderate-to-vigorous exercise they did or their total sedentary time, those who took more breaks from sitting had lower waist circumferences, lower body mass indexes and lower levels of triglycerides and glucose in blood.

Higher levels of triglycerides, or blood lipids, have been linked to a heightened risk of heart disease and stroke. High blood glucose levels are linked to the development of diabetes, which itself is a major risk factor for heart disease.

"What this shows is there are benefits in just getting up regularly and interrupting your sedentary time," principal researcher Genevieve Healy of the University of Queensland said.

Researchers behind the Stand Up Australia project have written to the

Rudd Government requesting \$3.5 million for a two-year study into the impact of prolonged sitting on the health and productivity of workers. The study would also develop and test strategies for reducing sitting time on the job.

The project is a collaboration between the Baker Heart Research Institute and the International Diabetes Institute, which will merge this year, and the universities of Melbourne and Queensland.

The latest study builds on work that is shifting the health promotion focus from purposeful exercise, such as jogging or cycling, to lower intensity activity throughout the day.

The Australian research has been backed up by US studies, which show the sheer effort of standing up is enough to double the metabolic rate and the amount of calories burnt.

"If you stand up, you are much more likely to end up pacing or pottering around and that seems to make a crucial difference," Professor Marc Hamilton from the University of Missouri told Britain's *Daily Mail*.

His studies found that the enzymes responsible for breaking down fat are suppressed when a person is sitting instead of standing.

"To hold a body that weighs [77 kilograms] upright takes a fair amount of energy from muscles," he said. "There is a large amount of energy associated with standing every day that can't easily be compensated for by 30 to 60 minutes in the gym."



Studies by associate Professor David Dunstan, of the International Diabetes Institute, linked subjects who spent more time watching television with risk factors for diabetes and heart disease, regardless of their levels of moderate-to-vigorous exercise.

➤ **Time to take a stand:**
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