

Obesity study exposes heavy toll of work-life balance

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Credit: Jesper Sehested/Flickr

Workers with physically demanding jobs who are inactive out of hours are at greater risk of obesity than those with a more even work-life balance, an international study has found.

Researchers from the University of South Australia in partnership with Denmark's National Research Centre for the Working Environment, the

University of Gävle, the University of Copenhagen and the University of Southern Denmark tracked the time-use behaviors of 807 [blue-collar workers](#) in bid to investigate links between work, leisure and [obesity](#).

Classifying workers into four unique behavior profiles—"ants," "koalas," "lions" and "chimpanzees"—based on their distinct behaviors both at work and at play, the study found that while being active is generally considered to be healthy, being very active at work but stationary at home, could have the opposite effect.

The study recorded workers' movements over four 24-hour periods (including at least two working days), tracking data via a triaxial accelerometer attached to their thighs. Workers also completed a paper-based diary to note their activities. Obesity indicators included waist circumference, weight, and body fat percentage (BMI).

University of South Australia researcher Dr. Dot Dumuid said the findings contradicted popular health messages.

"Our research shows that 'lions' – people who spent much of their [work time](#) being active, but most of their [leisure time](#) sedentary or in bed—tended to have the highest risk factors for obesity," she said.

"This is contrary to what you might expect, that people who are sedentary both at work and play—those we have dubbed 'koalas' – would be most at risk of obesity, when this is not the case."

"Certainly, to prevent obesity, you need to exert energy—but looking at this in isolation is not showing us the full picture."

Four distinct animal profiles were identified based on the work and leisure movement behaviors:

- Ants: people who are active throughout the day, both at work and at leisure;
- Chimpanzees: people who have a relatively even distributed composition of work and leisure behaviors;
- Koalas: people who are more sedentary and less physically active at work and at leisure, while also spending more time in bed;
- Lions: people who are very active at work, but mostly sit around at home and stay in bed longer.

Dr. Dumuid said the study challenged the broadly-held notion that a lot of activity is a good way to prevent obesity, when in fact obtaining a balance of energy exertion was perhaps more important.

"An existing behavioral approach to prevent obesity is to exert more energy by increasing physical activity and reducing sedentary activity. However, this does not incorporate the recovery process—rest and sleep—which is also important for your body," she said.

"If your body does not get enough time to recover, it can cause a state of chronic heightened inflammation which can induce adverse effects, such as storing excess energy as fat.

"Similarly, someone who is very active at work, but crashes in front of the TV each night is not getting the right balance either—the body needs a balance of activity and recovery throughout the day.

The study, released to coincide with World Obesity Day on November 14, was initially published in the *International Journal of Obesity*.

Globally, obesity has reached epidemic proportions, with the World Health Organization reporting more than 1.9 billion adults overweight of which 650 million adults are obese. In Australia, more than a third of adults are overweight, with one in four being obese.

The rapid growth of obesity is leading to increased risk of heart disease, type 2 diabetes and some cancers, costing the Australian economy billions of dollars each year.

"With the rise of obesity, public health messages rightly talk about being more active. But what they fail to convey is the importance of having a balance of active and restful activities across the day—both during work and [leisure](#)," Dr. Dumuid said.

Provided by University of South Australia

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