



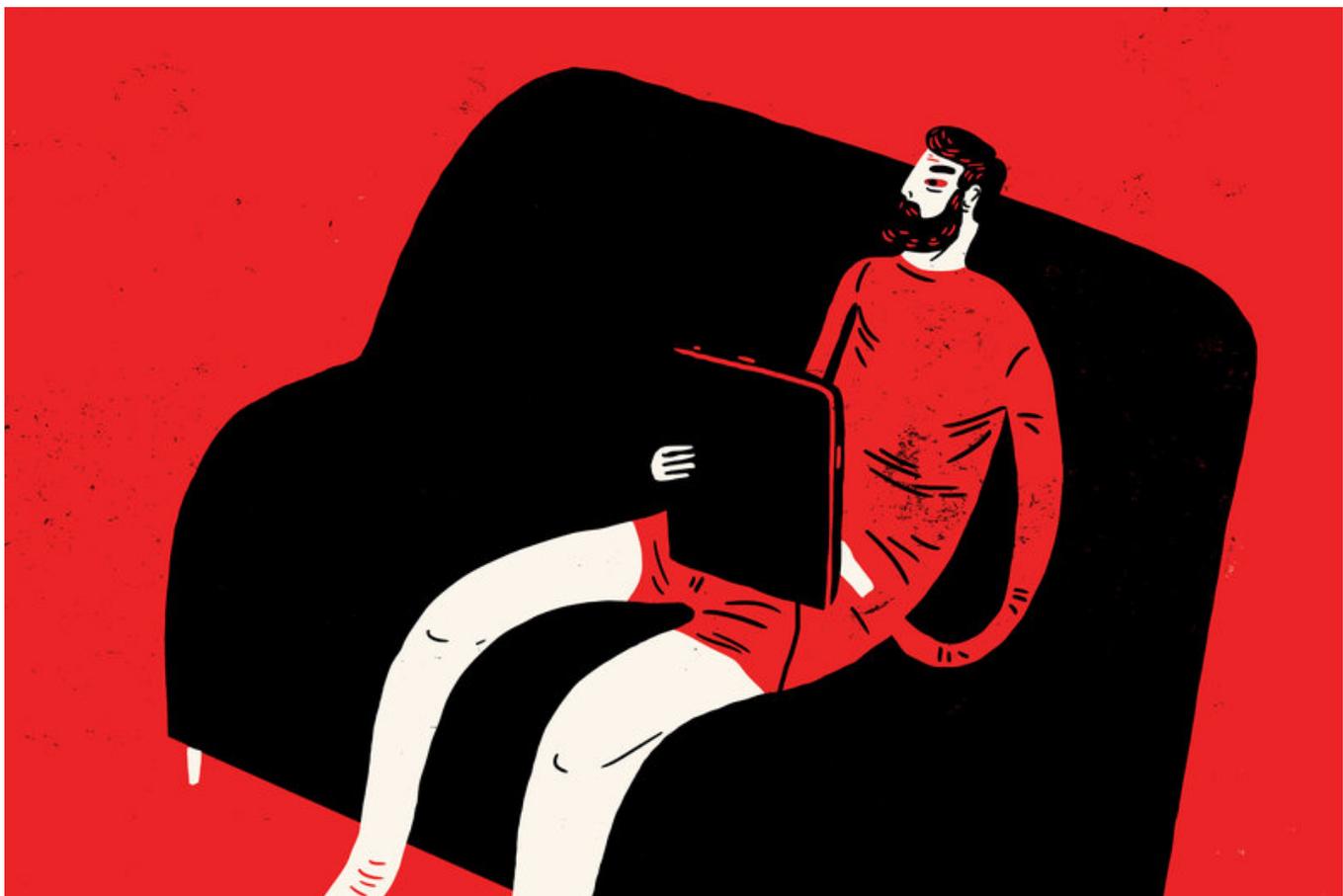
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YOUR HEALTH

Just Thinking You're Slacking On Exercise Could Boost Risk Of Death

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People who think they're more slothlike than peers may change their behavior to actually become less active.

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In a fitness-crazed land of spin classes and CrossFit gyms, Octavia Zahrt found it can be tough to feel as though you're doing enough. "When I was in school in London, I felt really good about my activity. Then I moved to Stanford, and everyone around me seems to be so active and going to the gym every day," she says. "In the San Francisco

Bay Area, it's like 75 percent of people walk around here wearing exercise clothes all day, every day, all the time, and just looking really fit."

She wasn't less active than when she lived in London, Zahrt says, but in comparison she began to feel a bit like a slacker. "I felt unhealthy. I was very stressed about fitting in more exercise," she says.

And just feeling less fit in comparison to others might trim away years of life, says Zahrt, a Ph.D. candidate in health psychology at the Stanford University Graduate School of Business. That's the conclusion of a study she co-authored, published Thursday in *Health Psychology*.

Past studies have suggested that mindsets concerning one's own health can have physiological consequences. In 2007, Stanford psychologist Alia Crum ran a study on hotel attendants. "These women were getting lots of exercise, but when we asked them they didn't have the mindset that their work was good exercise," Crum says.

She gave some of the hotel staff a presentation explaining that their work, which involves heavy lifting and walking, is good exercise, and then tracked them for a month. "The women who started to look at their work as good exercise had improvements in blood pressure and body fat," she says.

Crum and Zahrt collaborated on the new study, which looks at what might happen decades down the line. They analyzed data from two large national health surveys, the National Health Interview Survey and the National Health and Nutrition Examination Survey. Along with a litany of health metrics including activity, weight and smoking status, these surveys also ask participants to assess how much they believe they exercise compared to others their own age.

"Individuals who thought they were less active than other people their age were more likely to die, regardless of health status, body mass index, and so on," Crum says.

That was true even though the researchers looked at people who were roughly the same in every way, including how much they actually exercised based on self-report

and step-tracking data, obesity and heart health, except for how much they thought they worked out compared to others.

They analyzed three sets of the survey data, and all three showed people who felt they worked out less than their peers were more likely to die in a 21-year follow-up period than those who felt they exercised more than their peers. In one sample, these people were 71 percent more likely to die. "I was very surprised by the size of [that effect]," Zahrt says. "That there would be an effect on mortality so many years later, that wasn't necessarily obvious to me."

The researchers think there may be a couple of reasons for this. One is simply a type of placebo effect. "What placebo underpins is the effect of our mindset," Crum says. "[For example], the belief you're getting a pain medication can activate endogenous opiates in the brain." Crum thinks something similar may be at play here, where an underlying dread of not exercising enough is a powerful frame of mind that can harm health.

Social comparisons can also be demotivating. "People who think they are less active can be discouraged by that perception, and they might stop exercising and become less active over time," Zahrt says. That subsequent drop in real exercise could account for some of the negative health outcomes the researchers saw in their study.

It's tough to say what's responsible for the study's effect, says Angelina Sutin, a behavioral scientist at Florida State University College of Medicine who was not involved with the work. "We don't have a real grasp on what the mechanism is yet," she says. This study only correlated those who felt they exercised less with higher mortality rates and isn't able to pin down why that might be, Sutin says.

Plus how much you think you exercise is probably still not as important as how much you actually exercise, Sutin points out. Still, she thinks the study is extremely well done. "I thought this was a really nice study and adds a piece of this perception puzzle we're trying to work through," she says.

If Crum and Zahrt are right, and living with the belief you aren't active enough can shorten your life, then their results call into question scare tactics for health messaging. "If you tell people they need to get this really high level of activity or else

they have all these healthy complications and die early, you might just be instilling this negative mindset," Zahrt says.

Messaging needs to have accurate information about health and exercise and motivate people to be more active, but doing that without instilling a fear of not exercising can be tricky, Crum says. "The ultimate end goal is the sense of enoughness," she says. "It's all individual. If you're thinking, every day, that you haven't done enough, that is problematic."

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