What working long hours does to your body

Experts warn that working long hours can increase your risk of heart disease, lower back pain, and type 2 diabetes—and the tipping point might be sooner than you think.

By Rachel Fairbank
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Nurses take brief refuge during a shift break in Mon, Belgium. Working long hours as many medical professionals did during the pandemic can take a serious toll on your body—affecting your mental health and even increasing your risk of heart disease.

Photograph by Cedric Gerbehaye, Nat Geo Image Collection

Increased stress. Anxiety. Lower back pain. High blood pressure. If you've been working long hours at the office, then you might be intimately acquainted with some of the ways that overwork can have an impact on your health.

But even as debate rages over whether it's time to switch to a four-day workweek, some workplaces are headed the other direction: In July, Greece passed legislation allowing some employers to mandate a six-day workweek, while Samsung is requiring its executives to work a six-day week. This raises the question of what impact working long hours has on the body.

In 2021, the World Health Organization and International Labor Organization released a report that looked at the health risks of overwork. The report found that working long hours, defined as more than 55 hours a week, was responsible for 745,000 deaths from stroke and heart disease in 2016—a 29 percent increase since 2000.

"There's sufficient data to show that excessive work is the first occupational disease in the world," says Alexis Descatha, a researcher at the Hospital and University of Angers-Inserm, based in France. As research is showing, even a 40-hour workweek, which has long been upheld as the standard for work-life balance, may not be as good for our health as we once thought.

The hidden consequences of overwork

The health effects of overwork can be both direct and indirect. The stress associated with working long hours can have a direct impact on your health, by keeping your body in a constant state of flight-or-flight. This in turn leads to raised cortisol levels, which affects blood sugar levels, and alters the immune system.

Over time, if this stress becomes chronic, it can lead to a number of health issues, such as high blood pressure, headaches, anxiety, depression, digestive issues, heart disease, heart attack, stroke, or sleep disturbances.

Working long hours can also have an indirect effect, by taking away the time that a person can use to engage in healthy activities. "When you work too much, you don't have time to sleep well, to eat well, to play sports," Descatha says. By replacing leisure time activities, such as going for a walk or spending time with family, with more work, this can compound the negative health effects.

As research is showing, these negative health impacts might not start showing up years down the road. In the report released by the WHO and ILO, the majority of deaths related to overwork were in workers over the age of 60, who had reported working 55 hours or more while younger.

"Ten years seems to be the point at which we really see a step increase" in the cumulative health effects of overwork, says Grace Sembajwe, a researcher at Indiana University School of Public Health in Bloomington, Indiana. For those who work long hours over a shorter period—finishing up a stressful project, for example—the health effects are lesser, and can be mitigated if they stop working long hours.

Although the strongest effects are seen in workers who work more than 55 hours a week, Sembajwe notes these effects are also seen in workers who work more than 40 hours a week.

"Even the 40-hour week isn't that great, from a health perspective," Sembajwe says. As research is showing, reduced workweeks result in better life quality, improved sleep, and reduced stress. As a result, some countries are starting to put in protections for shorter workweeks and longer vacation times. This includes Iceland, where 86 percent of workers have a four-day workweek, and Denmark, which has an official 37-hour workweek, with five weeks of mandated vacation time per year.

How sitting too long increases your risk

According to the U.S. Bureau of Labor Statistics, civilian workers sit an average of 3.46 hours a day. For office workers, this number might be as much eight to 10 hours a day, while for manual labor jobs, this might be as little as one hour a day.

For office workers, spending long hours sitting at a desk can have an effect over time, by increasing their risk for developing a number of chronic diseases, such as high blood pressure or Type 2 diabetes. And that risk only increases the longer you spend at work. "If you increase your working hours, you are increasing your sitting time," says Aidan Buffey, a researcher at the University of Limerick in Ireland, whose research focuses on the health effects of sedentary time in office workers.

How much sitting is too much? As Buffey notes, the tipping point seems to be somewhere around eight to 10 hours a day, with sedentary time greater than 11 hours leading to a much higher risk of developing health issues. For workers who follow up their sedentary time at work with sedentary activities such as watching TV during their free time, this can quickly add up to greater than eight hours a day.

Office workers are also at a higher risk for certain overuse injuries, such as neck or lower back pain, due to sitting for long hours every day. "Sitting is a stressful position for your spine," says Ryan Steiner, a physical therapist at the Cleveland Clinic, in Cleveland, Ohio. These health issues can be offset by exercise, with the risks noticeably decreasing in people who get an average of 150 to 300 minutes of physical activity a week. These effects can also be offset by taking short breaks throughout the day, whether it's walking for a few minutes or shifting to a standing desk.

The physical activity paradox

For people working in manual labor, however, the increased physical activity can work against them, a phenomenon known as the physical activity paradox. Although increased physical activity in your leisure time helps guard against cardiovascular disease, increased physical activity as part of work actually increases the risk of cardiovascular disease.

Researchers are still trying to understand the reasons for this paradox but one possible explanation is that, unlike in your leisure time, workers don't have control over the length and intensity of their physical activity.

"The body is in a bit of chronic stress," Buffey says. "They're also not able to recover because they have to go back to work the next day." The effects of chronic stress can also be compounded by other lifestyle factors, such as not being able to eat a balanced diet or prioritize sleep. Elite athletes, on the other hand, don't see a negative effect from their high levels of physical activity. This can likely be attributed to the fact that in order to maintain their athletic performance, they have to prioritize rest, recovery, and good nutrition outside of work.

Working conditions matter—and flexibility makes a difference

Your working environment can either amp up the stress of working long hours or it can offset those health risks.

As research is showing, workers who have greater control over their working environment —such as being able to control the pace at which they work or the number of responsibilities that they take on— report less stress compared to their peers with less control. This in turn translates to better health outcomes, such as a decreased risk of heart disease. "We do know that jobs with high demand and low control are associated with cardiovascular disease," Sembajwe says.

Employees who have flexibility over their work schedule, which includes being able to adjust it as needed to accommodate the demands of their home life, have better mental health than employees who don't have control over their schedule. As research shows, this effect is true, even when comparing employees who work a similar number of hours each week.

"Work flexibility itself, independent of numbers of hours worked, independent of paid time off, is negatively correlated with depression or anxiety," says Pearl McElfish, a researcher at the University of Arkansas for Medical Sciences, in Little Rock, Arkansas. "People who have that flexibility report less anxiety and depression than people who don't have that flexibility."

As it turns out, when it comes to working to live, rather than living to work, we all stand to benefit from a shorter, more flexible workweek.