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Here's Why Health Experts Want to Stop Daylight-Saving Time

Early Sunday morning, most people in America will spring forward and move their clocks one hour ahead to daylight-saving time.

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It is good news for those who enjoy more daylight in the evening. But experts say a growing body of evidence shows that the annual time shift is bad for our health, disrupting our circadian rhythms and sleep and leading to a higher immediate risk of heart attacks, strokes, atrial fibrillation and potentially car accidents.

One thing is clear: **A majority of Americans and states want to stop the tradition of moving clocks** an hour ahead in spring and an hour back in the fall. A 2019 survey by the Associated Press and NORC Center for Public Affairs Research found that 28% of people polled are happy with the status quo. Meanwhile, 31% would like to be on daylight-saving time year-round, while **40% would prefer sticking solely with standard time.**

More states are passing legislation to stay on daylight-saving time permanently though the change can't be made without congressional action. In the past three years, **nine states have passed** measures to stay on daylight-saving time year-round and many more are considering legislation.

But many **health experts say the switch should be to permanent standard time** and are calling for an end to daylight-saving time. Studies have compared the rate of heart attacks and strokes immediately after switching to daylight-saving time to other times of the year. Such studies are retrospective so they show an association between daylight-saving time and certain health conditions but don't prove that it causes them. Comparison studies haven't been done in countries that don't observe the time change, such as Colombia.

Clock changes affect our internal circadian clocks, which are located in every cell in our body and influence our biological workings, from hormone levels to blood pressure. All our biological functions oscillate daily with our circadian rhythm and disrupting this internal clock can affect our health.

The Society for Research on Biological Rhythms published a study last year calling for abolishing daylight-saving time. Till Roenneberg, professor emeritus at the University of Munich in Germany and president of the World Federation of Societies for Chronobiology, was lead author of the article and **a follow-up study** published in the journal *Frontiers of Psychology*. **"Most of our physiology is governed by a circadian clock,"** Dr. Roenneberg said. **"This body clock synchronizes to the sun time."**

When you travel to a different time zone your circadian clock adjusts to a new darkness-sunlight cycle in a few days. In daylight-saving time, the dark-light cycle doesn't change but the time does. So there is a discrepancy between your biological clock and social clock, which researchers refer to as "social jet lag," Dr. Roenneberg said. **Permanent standard time is closer to the sun's natural time so social jet lag is reduced, he added.**

"Daylight-saving time means that we virtually live in another time zone without changing the day-light cycle," Dr. Roenneberg said. **"The problem is the misalignment. The circadian clock is trying to optimize our physiology. Now suddenly we have to do things which are not at the biologically appropriate time."**

"It's a general stress of the physiology," he added.

The acute effect of daylight-saving time in the days after the change are an increased risk of heart attack and stroke, studies show. The risk is usually in the days following the switch, and not long term, raising questions about whether the time change is triggering heart attacks that would have happened anyway.

Beth Ann Malow, a professor of neurology at Vanderbilt University Medical Center in Nashville, Tenn., wrote in **an opinion piece in *JAMA Neurology*** that switching between daylight-saving time and standard time is bad for the brain. **"Going back and forth is ridiculous and disruptive, it makes no sense,"** said **Dr. Malow, who believes permanent standard time would be healthier for all.**

A [survey](#) conducted by the American Academy of Sleep Medicine reported that 55% of Americans report feeling tired after the transition to daylight-saving time. The group's [health advisory](#) says studies show that moving into or out of daylight-saving time can adversely affect sleeping and waking patterns for five to seven days.

Some people have a harder time. **"A lot of people think it's like traveling from Chicago to New York, you get used to it within a day," she says. "It's very different than that. It's kind of like a permanent thing, where for the next eight months you're an hour off."**

Mary Beth O'Connor, a 57-year-old professor who has a circadian rhythm sleep disorder, knows the feeling. Melatonin tests show that the time her body naturally falls asleep is about 6 a.m. "Your body knows what time it's supposed to be and when they change the time, people—such as myself—with sleep disorders have a seriously hard time adjusting," she said.

"As soon as the clock changes, it messes everything up," said Ms. O'Connor, who lives in a suburb of Chicago and is treated for the disorder at Northwestern Memorial Hospital's circadian medicine clinic. "It throws my entire system off. I get headaches, stomachaches. Everything feels so off to me."

Muhammad Adeel Rishi, a pulmonologist and sleep physician at the Mayo Clinic Health System in Wisconsin, is the lead author of a daylight-saving time position statement that the American Academy of Sleep Medicine intends to publish this year.

About half-a-dozen studies have found a 5% to 15% increased risk of having a heart attack during the days after shifting to daylight-saving time. **"It's a preventable cause of cardiac injury," Dr. Rishi said. One study found the opposite effect during the fall, in the days after the transition back to standard time. "So maybe the risk stays high throughout the time when we are on daylight-saving time," he said.**

The evidence in strokes is less abundant, with [one 2016 study](#) showing an increased in the two days after the transition to daylight-saving time, said Dr. Rishi. Other studies have found an increased risk of [atrial fibrillation](#), as well as more [emergency-room visits](#) and an increased risk of [depression and suicide](#).

Jori Ruuskanen, a neurologist at Turku University Hospital in Finland, was first author of a stroke study that found an 8% increase in the rate of strokes in the two days following the shift to daylight-saving time but no increase over the whole week. He speculates that the transition triggered strokes a bit earlier than they would have occurred otherwise.

Hitinder Gurm, a professor of interventional cardiology at the University of Michigan, is senior author of [a 2014 study](#) that found a 24% increase in heart attacks in the day after the daylight-saving time change but not when looking at the whole week. Dr. Gurm and his colleagues subsequently repeated the same study with the most recent five years of data and found no statistically significant effect. The latter study's findings haven't been published. Dr. Gurm speculated that the change may be due to better care of cardiac patients or perhaps the proliferation of mobile phones, making people less anxious about remembering to change their clocks.

Andrew Krumerman, a professor of medicine at Montefiore Medical Center/Albert Einstein College of Medicine in the Bronx, is senior author of [a study published in January](#) in the journal *Sleep Medicine* showing an increase in atrial fibrillation admissions following the transition to daylight-saving time but not after the fall time change. "People really need to pay attention to healthy sleep habits especially around this period of time," Dr. Krumerman said.

Findings on the effect of time changes on car accidents are mixed. One [study published last month](#) in the journal *Current Biology* found a 6% increase in car accidents in the week after the switch to daylight-saving time. Céline Vetter, director of the Circadian and Sleep Epidemiology Lab at the University of Colorado Boulder and senior author of the study, says the **researchers looked at fatal car accidents during the fall and spring time changes and found a significant effect only in the spring.**

The 6% effect is small, Dr. Vetter said, but **affects "many, many individuals so we still think it's something that has quite a public health impact."**