Dragging? Blame the 'time pollution' of springing forward

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How did it feel getting out of bed this morning?

Ben Smarr has the idea that it likely was a sub-par experience.

Smarr is a National Institutes of Health research fellow at UC Berkeley, and he says the simple act of moving the clock forward, as happened over the weekend, or moving it back, which will happen in the fall, doesn't come without a cost.

The body is built of cells, and many cells don't take kindly to time change. It happens more radically in cases of jet lag, when hopping over a bunch of time zones can leave people out of sorts for days on end.

It is Smarr's contention that there is a social jet lag that, in some ways, mimics the physical one.

"The basic point is that, since life began on Earth, we've had one very stable time-keeping mechanism," Smarr says. "The sun rises, the sun sets. It happens every day, and life is very good at anticipating time that way. Cells in the body have internal clocks. What they don't have is an internal mechanism to shift when the clock changes.

"What happens is that, when the cells find the clock has been yanked sideways by an hour, it's like jet lag," he adds. "It means parts of your brain, or pancreas, or G.I. tract, or liver or other body parts are going to need some time to adjust."

He says there is no telling which body parts will be impacted by the change, but with the body being comprised of so many different parts, some sort of system failure is likely.

So, if you woke up on March 11 feeling out of sorts, the March 10 advancing of the clock from standard time to daylight savings time has a decent chance of being the reason.

Smarr, whose research into the body's circadian rhythm dates back to 2006, says you can equate the shift to pollution.

"If I walk to work, then I'll be walking next to a street," he says. "Knowing that, I'm going to get some level of pollution in my body. It doesn't stop me from walking, but I'm still aware of it, nonetheless. In the same way, time pollution doesn't kill you overnight, but it does come with a cost."

It's been documented that time changes have demonstrable links to automobile accidents, workplace accidents, heart attacks and strokes.

"The field has only been open to study for about 30 years," Smarr says. "If you'd said this five years ago, you wouldn't have been taken all that seriously. But the field is advancing; there's a lot more direction. It means that now we can see the problem, and now we can make informed decisions with better public engagement."

And part of that public engagement has to be a debate over whether or not to continue with daylight saving time, which is in use in every state except Hawaii and Arizona.

"There is data that says there are more accidents and more heart attacks on the Monday after the move forward," Smarr says. "That's a cost. I've never heard why it's beneficial to offset that cost."

California is one of a number of states to have mulled dropping daylight saving time. Voters passed Proposition 7 last November, repealing the 1949 initiative that began daylight saving time in the state. At the same time, the proposition allows the state legislature to adjust daylight saving time, as needed.

Even so, before California can scrap daylight saving time, two more paths have to be followed. A bill authorizing it to be dumped would have to pass the state legislature and also receive federal authorization in the form of a majority vote in Congress.

"I love this issue as a circadian biologist," Smarr says. "If daylight saving time is not good for the internal clock, then it's not good for body health. It's important for us to see the public costs."

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