

Losing hour over weekend may put heart at risk Monday

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Expert warns of 10% increase in heart attack risk among those who don't prepare for lost sleep.

(HealthDay) -- Not only do you lose an hour of sleep after the clocks move ahead to daylight saving time this weekend, you may also be at increased risk for a heart attack, an expert warns.

"The Monday and Tuesday after moving the clocks ahead one hour in March is associated with a 10 percent increase in the risk of having a [heart attack](#)," Martin Young, an associate professor in the cardiovascular disease division at the University of Alabama at Birmingham, said in a university news release. "The opposite is true when falling back in October. This risk decreases by about 10 percent."

The [heart attack risk](#) isn't higher on the Sunday morning after clocks move ahead one hour because most people don't have to make an [abrupt](#)

[change](#) in their daily schedule. However, the risk peaks on Monday when most people get up earlier to go to work, the researcher noted.

"Exactly why this happens is not known but there are several theories," Young said. "[Sleep deprivation](#), the body's [circadian clock](#) and immune responses all can come into play when considering reasons that changing the time by an hour can be detrimental to someone's health."

He explained that people "who are sleep-deprived weigh more and are at an increased risk of developing diabetes or heart disease. Sleep deprivation also can alter other body processes, including [inflammatory response](#), which can contribute to a heart attack. And, your reaction to sleep deprivation and the [time change](#) also depends on whether you are a morning person or night owl. Night owls have a much more difficult time with 'springing forward.'"

Young also outlined the possible role of the circadian clock.

"Every cell in the body has its own clock that allows it to anticipate when something is going to happen and prepare for it. When there is a shift in one's environment, such as 'springing forward,' it takes a while for the cells to readjust. It's comparable to knowing that you have a meeting at 2 p.m. and having time to prepare your presentation instead of being told at the last minute and not being able to prepare," Young explained.

"The internal clocks in each cell can prepare it for stress or a stimulus. When time moves forward, cell clocks are anticipating another hour to sleep that they won't get, and the negative impact of the stress worsens; it has a much more detrimental effect on the body," the researcher stated.

The immune system may also play a role in the increased risk of heart attack after the change to [daylight saving time](#). "Immune cells have a clock, and the [immune response](#) depends greatly on the time of day," he

noted.

Young offered tips for adapting to the time change: wake up 30 minutes earlier than normal on Saturday and Sunday to help prepare you for an early start on Monday; eat a healthy breakfast; head outside to catch some sunlight in the early morning; and, if you don't have [heart disease](#), spend a few minutes getting some morning exercise over the weekend.

"Doing all of this will help reset both the central, or master, clock in the brain that reacts to changes in light/dark cycles, and the peripheral clocks -- the ones everywhere else, including the one in the heart -- that react to food intake and physical activity. This will enable your body to naturally synch with the change in the environment, which may lessen your chance of adverse health issues on Monday," Young explained.

While the study uncovered an association between lost sleep and heart risks, it did not prove a cause-and-effect relationship.

More information: The U.S. National Institute of General Medical Sciences has more about [circadian rhythms](#).

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