

# Irregular sleep could impact your heart health

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It's not just lack of sleep and poor sleep that can put the heart at

risk—getting to bed on time may also matter, new research suggests.

The new study took the unique approach of looking at how much night-to-night difference a person had in [sleep duration](#) and what time he or she fell asleep. People with irregular sleep patterns had a higher risk for a cardiovascular event, including stroke, [congestive heart failure](#) and [coronary heart disease](#), the study found.

"Sleep regularity is an understudied area with critical relevance to everyone. Understanding its relationship with cardiovascular disease has important public health implications and may identify novel strategies for cardiovascular disease prevention," said Tianyi Huang, lead author of the study presented this week at the American Heart Association's Epidemiology and Prevention/Lifestyle and Cardiometabolic Health Scientific Sessions in Houston.

Researchers looked at data from nearly 2,000 people without cardiovascular disease at the start of the study. Participants wore sleep-monitoring wrist devices for seven-day periods from 2010 to 2013 and were followed for an average of four years. During that time, 95 people experienced or died from a stroke, heart failure or [heart](#) disease.

After adjusting for various factors, researchers found that people whose night-to-night sleep length during a seven-day period varied by more than two hours on average were 2.2 times more likely to have a cardiovascular event than people whose sleep length varied by an hour or less.

The time they fell asleep each night had a similar impact. Compared to people who went to bed within the same 30-minute window each night, those with a bedtime that varied by more than 90 minutes had double the risk of a [cardiovascular event](#).

Digital distraction may be making the problem worse. Spending a lot of time staring at smartphones, tablets and other glowing screens could be messing with our sleep regularity, said Huang, an associate epidemiologist at Brigham and Women's Hospital and Harvard Medical School.

"If our results are confirmed, the general public—particularly those at high risk for [cardiovascular disease](#)—needs to pay more attention to their sleep schedules," he said. "People should be encouraged to reduce use of mobile devices or TV viewing before sleep to improve sleep regularity and maximize cardiometabolic benefits."

Huang said the study is the first of its kind and called for larger studies with longer follow-ups, especially those that explore gender and age differences. He said studies are needed that focus on how irregular sleep is related to specific cardiovascular outcomes.

"I think it's important for doctors to ask their patients about their sleep habits beyond the number of hours of sleep they get at night," said sleep and nutrition researcher Marie-Pierre St-Onge. "Questions like, 'How stable is your sleep?' and 'Do you have wide swings in the duration of sleep?' would help to identify areas for improvement."

St-Onge, an associate professor of nutritional medicine at Columbia University in New York City, was not involved in the new research and said the study seems to confirm that people with poor sleep habits can't simply "catch up" on sleep.

"You can make an analogy between sleep and physical activity, where you have 'weekend warriors' who are absolutely sedentary during the week and then they hammer out two hours of [physical activity](#) in one day and think they'll be fine. That's not what we recommend, and it's the same with sleep," she said. "For optimal health, there has to be regularity

to these behaviors, and that includes sleep."

Another issue is that big changes in [sleep](#) timing can lead to a state of jetlag—referred to as "social jetlag"—without people even realizing it.

"People might not have outward signs—they might not even feel sleepy or yawn, just like people don't feel it if they have high blood pressure or high cholesterol levels. But the risk factor is still there," she said.

"People need to pay more attention and be more aware of the adverse impact [poor sleep](#) is having."

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