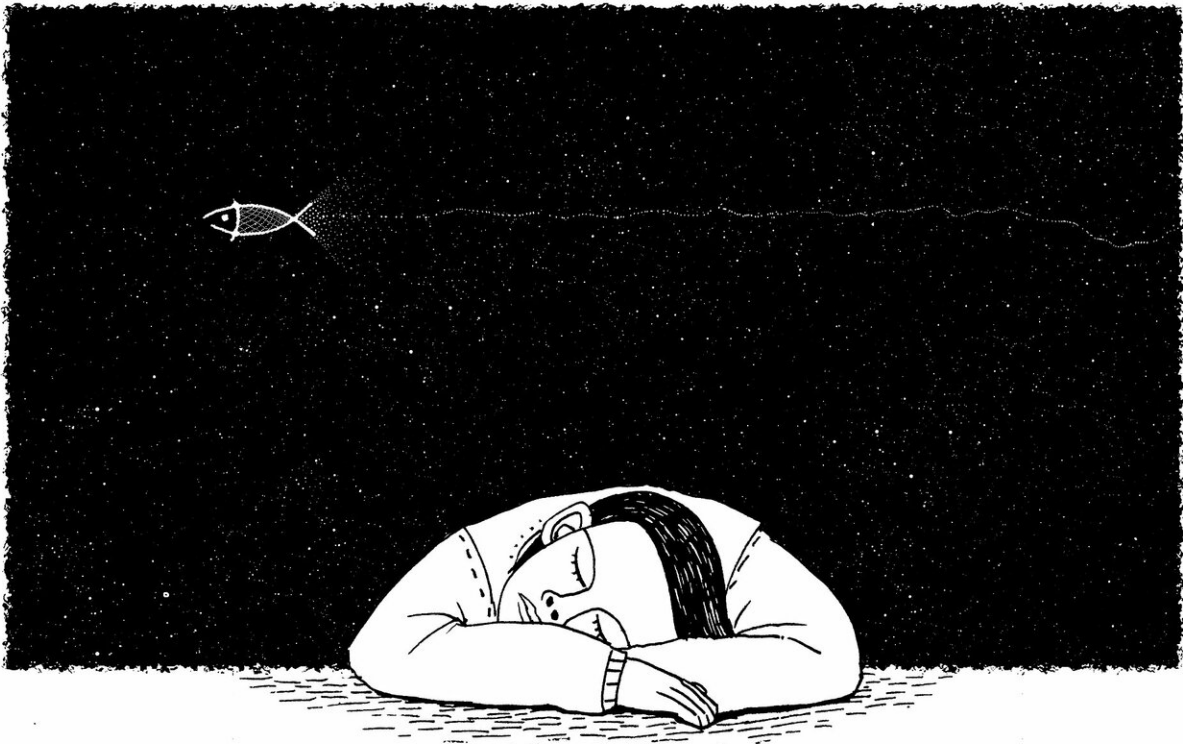


# Poor sleep can triple risk for heart disease

February 7 2022

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Individual aspects of poor sleep can be detrimental to heart health. But if you combine them, the risk of heart disease can increase by as much as 141 percent. That's the finding of a new study published in the journal *Scientific Reports*.

The University of South Florida-led study reviewed sleep data of 6,820 U.S. adults with an average age of 53 who self-reported their sleep characteristics and [heart disease](#) history. Among the participants, 633 also wore a research device (actigraphy) around their wrist that captured sleep activity.

Researchers focused on multiple aspects of sleep health, such as regularity, satisfaction, alertness during waking hours, timing of sleep, sleep efficiency and sleep duration and linked them to physician-diagnosed [heart](#) disease. They found that each additional increase in self-reported sleep health problems was associated with a 54 percent increased risk of heart disease. The estimated risk of heart disease associated with an increase in sleep health problems was much higher for those who provided sleep data by both self-report and the research device. They had a 141 percent increase—a figure that could be perceived to be more accurate.

"These findings show the importance of assessing 'co-existing sleep health problems' within an individual to capture the risk of heart disease. This is one of the first studies showing that among well-functioning adults in midlife, having more sleep health problems may increase the risk of heart disease," said lead author Soomi Lee, assistant professor of aging studies and director of the STEALTH lab at USF. "The higher estimated risk in those who provided both self-report and actigraphy sleep data suggests that measuring sleep health accurately and comprehensively is important to increase the prediction of heart disease."

The research team asked participants about their health, including if their physician confirmed a heart condition such as arrhythmia, heart murmur or an enlarged heart. High blood pressure was not considered a diagnosis as it's labeled a risk factor for heart disease rather than a heart disease condition. They also controlled for family history of heart

disease and sociodemographic factors, such as race, sex, smoking, depression and physical activity.

Researchers found that while women reported having more sleep health problems, men were more likely to suffer heart disease—yet gender did not impact the overall correlation between the two factors. They also found that Black participants had more sleep health problems and a higher prevalence of heart disease than white participants, but the strong association between sleep health and heart disease did not differ by race in general.

Lee says while sleep health is important for all ages, the team focused on middle adulthood as it spans for a longer period of time and consists of diverse and more stressful life experiences due to work and family roles. This is also when precursors for heart disease and age-related sleep issues begin to arise.

Since sleep [health](#) can be modified, researchers say these findings can contribute to future prevention strategies to mitigate the risk of heart [disease](#), which is the leading cause of death in the U.S.

**More information:** Soomi Lee et al, Sleep health composites are associated with the risk of heart disease across sex and race, *Scientific Reports* (2022). [DOI: 10.1038/s41598-022-05203-0](https://doi.org/10.1038/s41598-022-05203-0)

Provided by University of South Florida

Citation: Poor sleep can triple risk for heart disease (2022, February 7) retrieved 6 May 2024 from <https://medicalxpress.com/news/2022-02-poor-triple-heart-disease.html>

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