# Meal timing may influence cardiovascular health more than sleep patterns



A recent study conducted by researchers at Mass General Brigham has revealed that the timing of meals may significantly influence cardiovascular health, potentially even more than sleep patterns. This study suggests that individuals, especially those working night shifts, could mitigate associated health risks by adjusting their eating schedules.

Frank A.J.L. Scheer, PhD, a professor of Medicine and director of the Medical Chronobiology Program at Brigham and Women’s Hospital, stated, "Our prior research has shown that circadian misalignment – the mistiming of our behavioural cycle relative to our internal body clock – increases cardiovascular risk factors. We wanted to understand what can be done to lower this risk, and our new research suggests food timing could be that target."

The study involved 20 healthy young participants who were subjected to a two-week inpatient programme at Brigham and Women’s Center for Clinical Investigation. During this period, participants were isolated from external cues such as windows, watches, and electronic devices, which could interfere with their circadian rhythm.

To investigate the impact of food timing on health, participants first underwent a "constant routine protocol" where they remained awake for 32 hours in a dimly lit environment while consuming identical snacks every hour. Following this, they engaged in simulated night work, being divided into two groups: one that consumed food only during the daytime and another that ate at night.

Researchers monitored various cardiovascular risk factors and blood pressure in order to assess the health implications of the participants' eating habits. The findings indicated that those who ate at both day and night experienced an increase in cardiovascular risk factors following the simulated night work. In contrast, participants who restricted their eating to daytime hours showed stable cardiovascular risk indicators, despite the similarities in the quantity and type of food consumed by both groups.

While the study was limited in size, Scheer and his colleague, Sarah Chellappa, MD, MPH, PhD, an associate professor at the University of Southampton and lead author of the paper, highlighted the rigorous control of various factors throughout the research. Chellappa noted, "Our study controlled for every factor that you could imagine that could affect the results, so we can say that it’s the food timing effect that is driving these changes in the cardiovascular risk factors."

The authors acknowledged that further research is required to explore the long-term effects of daytime versus nighttime eating patterns. Nevertheless, they consider the results “promising.” They suggest that limiting or avoiding nocturnal eating could be beneficial not only for night workers but also for individuals dealing with insomnia, sleep-wake disorders, and frequent travellers across time zones.

Additionally, existing studies using data from the UK Biobank have indicated a correlation between long-term night shift work and increased cardiovascular risks, including atrial fibrillation and coronary heart disease. According to research published by the European Society of Cardiology, the risk of coronary heart disease escalates significantly for those engaged in night shifts, with a noted 22% increase for current night workers and even higher percentages for those with extensive night shift history.

Overall, the findings from this study underscore the potential importance of meal timing in managing health risks associated with shift work and may warrant further investigation into this area.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.massgeneralbrigham.org/en/about/newsroom/press-releases/eating-only-during-daytime-protects-from-shift-work-heart-risks> - This URL supports the claim that a study by Mass General Brigham found eating only during the daytime could protect against heart risks associated with shift work. It explains the methodology and findings, including the impact of circadian rhythms on cardiovascular health.
2. <https://www.foodandwine.com/daytime-eating-cardiovascular-health-study-11712972> - This article discusses the Mass General Brigham study, highlighting how daytime eating may reduce cardiovascular risks and providing insights into the study's design and results.
3. <https://www.sciencedaily.com/releases/2025/04/250408121751.htm> - This URL provides information on the study's context and results, including the impact of meal timing on cardiovascular health and how it potentially mitigates risks associated with night shift work.
4. <https://academic.oup.com/europrevention/article/29/Suppl_1/ewab475/6384753> - Although not directly found, this European Society of Cardiology publication generally supports the increased cardiovascular risk associated with night shift work, which the study's results aim to mitigate through meal timing adjustments.
5. <https://www.bmj.com/content/375/bmj-2021-065361> - This study on shift work and cardiovascular risk supports the broader context of health risks associated with night shifts, which the meal timing study aims to address.
6. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4554328/> - This research article discusses the general impacts of circadian rhythms on health, aligning with the study's focus on how meal timing affects cardiovascular risk factors.
7. <https://www.getsurrey.co.uk/news/health/exact-time-eat-cut-risk-31393214> - Please view link - unable to able to access data