

# Retired night shift workers have higher risk of diabetes, study finds

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(Medical Xpress)—People who regularly work night shifts in their lifetimes are twice as likely to have diabetes, even if they have retired and returned to a normal, daytime schedule, according to a new study released today in the *Journal of Biological Rhythms*.

The study complements previous international research that found night shift work is associated with a decrease in metabolic health, impaired glucose metabolism, increased [body mass index](#) (BMI), and impaired insulin resistance. In the U.S., a recent [Nurses' Health Study](#) showed a night shift work-related increase in BMI and diabetes risk in working female nurses. The Pitt study is the first to examine the increased risk of diabetes in a large, U.S. sample of retired men and women with varying pre-retirement occupations who are no longer subject to the stresses of night shift work.

"The results are worrisome, given the current epidemic of diabetes and obesity in the U.S.," said Timothy H. Monk, Ph.D., D.Sc., the study's lead author and professor of psychiatry at the University of Pittsburgh School of Medicine. "Increasingly, scientific study has confirmed the importance of regular sleep patterns and sufficient sleep in maintaining good health."

For this study, researchers interviewed more than 1,000 retired night [shift workers](#) over 65-years-old living in western Pennsylvania, and divided the respondents into five groups: those who worked [night shifts](#) for 0 years, 1 to 7 years, 8 to 14 years, 15 to 20 years and more than 20

years.

The results showed:

- Both BMI and [diabetes](#) rates were higher in retired former night shift workers than in retired former day workers.
- Night shift retirees were about twice as likely as retired former day workers to be diabetic if they had done night shift work and had a higher BMI.
- Even when BMI was excluded as a factor, [diabetes risk](#) was still higher in retired night shift workers (1.4 times greater risk as opposed to 2 times greater risk).
- Diabetes risk within the five shift-work-exposed groups did not differ, suggesting that any exposure to night shift work can be associated with increased risk.

"We ought to recognize that there is a health cost to society of exposing large numbers of people to night shift work. Steps should be taken both to encourage day work as an alternative wherever possible, and also to provide education and support for employees who are in occupations that, by their very nature, require work at night." added Monk.

The authors also recommended that intensive educational campaigns be launched to encourage [night shift workers](#) to adopt behavioral strategies regarding diet, exercise and circadian adjustment because of their increased vulnerability to metabolic health problems.

Provided by University of Pittsburgh

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