

Night owls face greater risk of developing diabetes than early risers

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Night owls are more likely to develop diabetes, metabolic syndrome and sarcopenia than early risers, even when they get the same amount of sleep, according to a new study published in the Endocrine Society's *Journal of Clinical Endocrinology & Metabolism*.

The study examined the difference between night and morning chronotypes, or a person's natural [sleep](#)-wake cycle. Staying awake later at night is likely to cause sleep loss, poor sleep quality, and eating at inappropriate times, which might eventually lead to metabolic change.

"Regardless of lifestyle, people who stayed up late faced a higher risk of developing health problems like [diabetes](#) or reduced muscle mass than those who were [early risers](#)," said one of the study's authors, Nan Hee Kim, MD, PhD, of Korea University College of Medicine in Ansan, Korea. "This could be caused by night owls' tendency to have poorer sleep quality and to engage in unhealthy behaviors like smoking, late-night eating and a sedentary lifestyle."

The study examined sleeping habits and metabolism in 1,620 participants in the population-based cohort Korean Genome Epidemiology Study (KoGES). The study subjects were between the ages of 47 and 59. Participants responded to questionnaires about their sleep-wake cycle, [sleep quality](#) and lifestyle habits such as exercising. Researchers took blood samples to assess participants' metabolic health. In addition, the study subjects underwent DEXA scans to measure total body fat and lean mass, and CT scans to measure abdominal visceral fat.

Based on the questionnaire results, 480 participants were classified as morning chronotypes, and 95 were categorized as evening chronotypes. The remaining participants had a sleep-wake cycle between the two extremes.

Even though the evening chronotypes tended to be younger, they had higher levels of body fat and triglycerides, or fats in the blood, than morning chronotypes. Night owls also were more likely to have sarcopenia, a condition where the body gradually loses muscle mass. Men who were evening chronotypes were more likely have diabetes or [sarcopenia](#) than early risers. Among women, [night](#) owls tended to have more belly fat and a great risk of [metabolic syndrome](#), a cluster of risk facts that raise the risk of heart disease, stroke and diabetes.

"Considering many younger people are evening chronotypes, the metabolic risk associated with their circadian preference is an important health issue that needs to be addressed," Kim said.

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The study, "Evening Chronotype Is Associated with Metabolic Disorders and Body Composition in Middle-Aged Adults," was published online, ahead of print.

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