

Early bird or night owl? Study links shift worker sleep to 'chronotype'

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Getting enough sleep can be a real challenge for shift workers affecting their overall health. But what role does being an early bird or night owl play in getting good rest? Researchers from McGill University find a

link between chronotype and amount of sleep shift workers can get with their irregular schedules.

"Some people seem to be hardwired to sleep early, while others tend to sleep late. This preference, called chronotype, is modulated by our [circadian system](#)—each person's unique internal timekeeper," says lead author Diane B. Boivin, a Professor in the Department of Psychiatry at McGill University.

Their study published in *Sleep* is the first to examine the relationship between chronotype and sleep behavior in shift workers during morning, evening, and [night shifts](#). To investigate this relationship, the researchers tracked 74 [police officers](#) as they worked their usual shifts. For close to a month, the officers wore a watch-like device, allowing researchers to measure their sleep.

Not all shifts created equal

"Our results suggest that the effect of chronotype on sleep duration and napping behavior depends on the shift type. On average early risers sleep 1.1 hours longer on morning shifts, while night owls sleep two hours longer on evening shifts," says co-author Laura Kervezee, a former Postdoctoral Fellow at The Douglas Research Centre affiliated with McGill University.

The power of naps

While [shift workers](#) take naps to reduce the effect of their irregular schedules on their sleep, the researchers found this behavior was more prominent during night shifts in early risers. Generally, early risers slept less after night shifts compared to night owls—but they also took more naps prior to their night shifts, so their total daily sleep was similar.

The findings could help design strategies to improve sleep in workers with atypical schedules, the researchers say. Such strategies could include work schedules that consider chronobiological principles.

"People involved in shift work experience an increased risk of sleep disturbances and fragmented sleep periods. Since sleep is essential for optimal performance, health, and well-being, it's important to develop strategies to get better rest," says Boivin, who is also the Director of the Centre for Study and Treatment of Circadian Rhythms at The Douglas Research Centre.

As next steps, the researchers hope to study the impact of chronotype and shift work on other health outcomes.

More information: Laura Kervezee et al, The relationship between chronotype and sleep behavior during rotating shift work: a field study, *Sleep* (2021). [DOI: 10.1093/sleep/zsaa225](https://doi.org/10.1093/sleep/zsaa225)

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