

Firefighters with poor sleep habits have worse overall health

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A George Mason University study, published in *Sleep Epidemiology*, found that firefighters with poor sleep measures had worse cognitive performance and overall health. The study also found that chronic poor

sleep would likely negatively affect physical performance on the job.

To avoid sleep-related declines in occupational performance, the researchers recommended fire departments consider the consequences of shift schedules on sleep.

"Because of the way firefighter shifts tend to work, with long hours where sleep is interrupted, firefighters are not getting the kind of sleep they need, and this could affect their health in numerous ways," said lead author Joel Martin. "The takeaway lesson is that fire departments should take steps to improve the [sleep hygiene](#) of firefighters."

The study further suggests that sleep education interventions and the use of wearables to monitor sleeping patterns could be beneficial for fire departments seeking to ensure optimal physical performance and cognitive functioning of their employees.

"We would recommend the fire stations provide opportunities for firefighters to take naps while on shift since shifts can last 48 hours or more," said Martin, who is an associate professor in the College of Education and Human Development and academic program coordinator for School of Kinesiology. "Ideally the sleep environment should be dark, quiet and in a temperature-controlled room."

The research focused on data found in 15 articles on sleep and firefighters, resulting in a total sample of 1,591 firefighters. Researcher Christopher Frost, who graduated from Mason with a master's degree in exercise, fitness and [health promotion](#) last spring, said he learned a great deal about the importance of sleep while helping write the article.

"Before I started the research, I really didn't understand how many problems can be caused by not getting restful sleep," said Frost, who is now pursuing an undergraduate degree in fine arts at Mason. "When you

are working on shifts, with emergency calls, your sleep schedule gets interrupted and that can have some pretty severe consequences."

Poor sleep hygiene, according to the study, is associated with a number of health consequences, including [cardiovascular disease](#), obesity, decreased response time and impaired balance, to name a few.

Mason doctoral student Michael Toczko said that the researchers are hoping to further study sleep patterns of firefighters by taking a "more global" look.

"This study reviewed examinations of [firefighter](#) sleep during a small amount of time," said Toczko, who is working on a Ph.D. in education with a concentration in kinesiology. "We'd like to get a bigger picture of sleep patterns and firefighters by reviewing what sleep looks like over a month or two months. That's the next step in understanding what firefighters are experiencing in regard to sleep."

More information: Chris Frost et al, The effects of sleep on firefighter occupational performance and health: A systematic review and call for action, *Sleep Epidemiology* (2021). [DOI: 10.1016/j.sleepe.2021.100014](#)

Provided by George Mason University

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