

# Burnout: Sleepless firefighters at risk of exhaustion and mental health conditions

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Sleep disturbances and mental health challenges are putting close to half of America's firefighters at high risk of emotional fatigue and exhaustion, new research shows.

The research was conducted by Monash University in Australia in collaboration with Brigham and Women's Hospital in Boston.

Of the 6,307 firefighters from 66 fire departments across the USA that took part in this [cross-sectional study](#), 49% exhibited high levels of physical and emotional [burnout](#) in at least one area.

Firefighters who screened positive for a sleep disorder, in particular insomnia, reported a threefold increased risk of emotional exhaustion. Those with a self-reported diagnosis of post-[traumatic stress disorder](#) (PTSD), depression or anxiety had up to four-times the increased risk of burnout.

Sleepiness and short sleep, even in firefighters who did not screen positive for a sleep disorder, were also associated with high levels of burnout.

The collaboration was led by Dr. Alexander Wolkow, Post-Doctoral Research Fellow and Professor Shantha Rajaratnam in the Turner Institute for Brain and Mental Health at Monash University, and Dr. Laura Barger and Dr. Charles Czeisler in the Division of Sleep and Circadian Disorders at Brigham and Women's Hospital.

Researchers investigated whether sleep disorder risk and mental health outcomes in firefighters were associated with burnout, particularly emotional exhaustion, and examined the role of sleep at work in these relationships.

The study identifies the physical and emotional impact that sleep loss and exhaustion can have on firefighters' ability respond to infernos and other incidents where lives and property are in danger. The study was published online in the *Journal of Sleep Research*.

"Firefighters are frequently exposed to sleep restriction due to their [work schedules](#), which typically involve 24-hour shifts. These schedules may prevent firefighters from obtaining sufficient sleep in order to feel rested," Dr. Wolkow said.

"Inadequate sleep during and after work, and into rest periods, may impair firefighters' ability to recover from occupational demands, potentially explaining the heightened burnout risk."

Almost half of the firefighters surveyed reported having less than six hours of sleep in a 24-hour period when working overnight (between 10pm and 8am), including 24-hour shifts, and 31% reported short sleep patterns the day after overnight work or a 24-hour shift.

In an important step forward, researchers provide evidence that [short sleep](#) during an overnight shift mediates the link between sleep disorder risk and high burnout on emotional exhaustion and depersonalisation levels.

"Given that 84.4% of our sample worked extended duration shifts of 24 or more hours, our findings highlight the need to maximise sleep opportunities during overnight shifts to reduce burnout," Dr. Wolkow said.

"For instance, fire department policies that encourage sleep—such as, permitting and encouraging napping and having black-out shades for sleep quarters, may increase firefighters' sleep at work.

"With the high cost of burnout to the individual and organisation on the rise, we suggest that reducing sleep and [mental health](#) disturbances should be a focus of fire departments' occupational health screening programs, along with trialling interventions designed to maximise sleep."

**More information:** Alexander P. Wolkow et al, Associations between sleep disturbances, mental health outcomes and burnout in firefighters, and the mediating role of sleep during overnight work: A cross-sectional study, *Journal of Sleep Research* (2019). [DOI: 10.1111/jsr.12869](https://doi.org/10.1111/jsr.12869)

Provided by Monash University

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