

Light exposure before nightshift cuts fatigue, errors

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Exposing nurses working nights to light before their shift cuts fatigue

and errors, according to a study published online April 18 in *Sleep Health*.

Mariève Cyr, from McGill University in Montreal, and colleagues evaluated whether [light exposure](#) in the evening, before a [night shift](#), could improve fatigue, [work performance](#), mood, and sleep in nurses. The analysis included 57 healthy nurses who worked full-time rapidly rotating shift schedules. Nurses were randomly assigned either to circadian alignment using evening light exposure from a portable light box and morning light avoidance or a control dietary intervention. Participants were followed and assessed for 30 days.

The researchers found that compared with baseline, the experimental intervention reduced errors by 67 percent, while the control intervention reduced them by 5 percent. Fatigue mediated this reduction, with experimental participants reporting less fatigue on workdays than control participants. A small improvement in mood was seen in the experimental group. Reductions in fatigue and sleepiness, as well as a small increase in sleep duration, were seen for both groups.

"Health care workers are experiencing high levels of fatigue due to staffing shortages, difficult schedules, and heavy workloads. Further, the cost of medical errors has been estimated at tens of billions of dollars per year in North America," a co-author said in a statement. "Our study shows that feasible changes, such as getting light exposure before the night shift, may help reduce fatigue and its effects on performance at work, something which could benefit both the nurses and their patients."

More information: Mariève Cyr et al, An evening light intervention reduces fatigue and errors during night shifts: A randomized controlled trial, *Sleep Health* (2023). [DOI: 10.1016/j.sleh.2023.02.004](https://doi.org/10.1016/j.sleh.2023.02.004)

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