

Working the night shift? Strategies for improving sleep and performance

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Our 24-hour society has made night shift work essential to people in many professions, including medical specialties. Working nights disrupts homeostatic and circadian rhythms, which leads to an accumulation of sleep debt (ie, the cumulative effect of not getting enough sleep).¹ This debt can affect performance by impairing processing speed, concentration, mood, and physical health.¹ Night shift work takes place during the period of the sleep-wake cycle that is programmed for sleep; after the shift, workers need to sleep during the period that is least conducive to sleep.¹ Research indicates that a night shift worker's sleep can be improved by scheduling light exposure and optimizing the timing of when they start their shifts.² However, this may not be practical because night shifts usually are scheduled at particular intervals and cannot be tailored to the individual worker's preference. Additionally, in the short term, full circadian adaptation to night shifts is impossible.¹

Because sleep and performance are complex phenomena that are difficult to control, there is no single solution to maximizing these factors when one works nights.¹ The most effective approach to combating the effects of night shift work is individualized and multimodal.¹ However, whether you are working a night shift or are caring for a patient who does, the following nonpharmacologic strategies can help improve sleep and performance until the body naturally adapts to working this type of schedule^{1,2}:

Minimize sleep debt before starting a series of night shifts by not setting an alarm on the morning before the first night

shift and by napping in the afternoon for approximately 45 minutes.

Take a nap during a work break (if work demands allow you to do so). However, nap for <30 minutes to avoid slow-wave sleep and subsequent grogginess when awakening.

Expose yourself to bright light immediately upon waking and for 15 minutes 2 or 3 times during a shift to promote alertness.

Drink caffeinated beverages before and during the shift to help improve concentration and reasoning (if there is no medical contraindication to consuming caffeine). However, avoid caffeine for at least 3 hours prior to going to sleep.

Add additional checks to critical tasks, such as ordering medications, during the shift, especially during the physiological nadir in the early hours of the morning.

Create a cool, dark, quiet environment for sleep using a comfortable mattress and pillow, blackout blinds, ear plugs, and



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a noise machine. Also, avoid using your smartphone or tablet while trying to go to sleep. Minimize exposure to bright light on the drive home, and stick to a routine (eg, for meals and exercise).

Avoid working too many consecutive night shifts (if possible) because this can increase sleep deprivation. Also, limiting the number of night shifts and schedul-

ing days off can speed recovery from sleep deprivation.

References

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