

Night Shift Work Strategy for Medical Trainees

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The Challenge

Overnight work shifts during medical training pose serious challenges to cognitive, emotional, and physical well-being. Residents must manage disrupted sleep, fatigue, social isolation from friends/family, and increased risk of error. Adapting, through strategies like pre-shift naps, efficient workflows, and recovery planning, can help to mitigate the strain of irregular hours on trainee well-being and patient safety.

What Is Known

While shift work is a frequent aspect of medical training, there are effective strategies to optimize sleep, maintain alertness, and lessen the cognitive and emotional strain of irregular hours. One evidence-supported strategy is taking naps during lulls in overnight work, which can enhance alertness, improve mood and energy levels, boost performance, and reduce post nap errors.¹

A planned hour-long afternoon nap before a shift helps to align the body's natural circadian rhythm and serves as a proactive buffer against the effects of sleep debt.² Its restorative benefits can extend into the following day, by enabling trainees to prioritize other activities (eg, exercise, social connections), thereby reducing the time needed for recovery of lost sleep. However, for napping to be effective, a structured approach is crucial. Preparation and a conducive environment play key roles in optimizing sleep during and pre/post night shifts.

How You Can Start TODAY

To maximize the benefits of napping and improve an overall night shift experience:

1. **Take a pre-shift nap.** Nap in the afternoon before your night shift to align your circadian dip. This "sleep banking" strategy helps reduce the effects of cumulative sleep debt.
2. **Prepare for an in-shift nap by packing an overnight bag.** Just as someone prepares for an overnight flight, pack essentials that facilitate comfortable and effective rest. Items such as a thick blanket, travel pillow, eye mask, toothbrush, and slippers can create a calming and cozy environment conducive to napping.

RIP OUT ACTION ITEMS

1. Take a pre-night shift afternoon nap.
2. Create a sleep conducive call room by packing an "overnight kit" for sleep periods during the night shift.
3. Streamline communication with nursing staff to reduce unnecessary sleep interruptions and create a more predictable workflow.
4. Prioritize safe recovery post-shift, including safe driving rideshare options when fatigued.
3. **Use a portable night light.** Hospital call rooms are often harshly lit. Turning on bright lights during the night can disrupt circadian rhythms. A portable night light or red light allows trainees to respond to pages or texts with less bright light stimulation.
4. **Proactively manage workflow.** Pre-round on more active patients ("watchers") and provide nurses with a detailed contact card—including name, title, and direct phone number to enhance subsequent communications. Scheduling proactive rounds in the beginning and middle of the shift to address nursing and patient needs can help minimize unscheduled interruptions and fragmented sleep periods, which allows for longer intervals of continuous rest.
5. **Streamline communication with nurses.** Efficient communication is key to minimizing disruptions and improving sleep efficiency. A common issue is the delay caused by waiting for page callbacks or returned phone calls. Training programs should consider adopting HIPAA-compliant tools such secure messaging apps, electronic health record-integrated chat functions, text-page systems or dedicated service line smartphones that allow nurses to text physicians directly for non-urgent issues. Urgent concerns should still be communicated via direct phone calls. Streamlined communication builds trust with nursing staff and helps trainees respond to patient needs promptly with fewer interruptions.
6. **Prioritize rest and recovery, including exercise.** Night shifts are not ideal for cognitively demanding tasks like board studying or writing research articles. Instead, focus on rest and light physical activity to support well-being. During awake work time, take short walks or stretch briefly; consider light workouts before or after shifts to boost physical and mental

health. Regular exercise can also help to align the sleep-wake cycle with the body's natural circadian rhythm.

What You Can Do LONG TERM

1. **Driving.** Programs and sponsoring institutions (SIs) should implement fatigue mitigation strategies, such as providing call rooms and reimbursing round-trip rideshare services for post-call trainees. Sleep deprivation impairs driving ability to a degree comparable with alcohol intoxication. If driving is unavoidable, wearing sunglasses during the morning commute can help minimize sunlight exposure and reduce melatonin suppression, to support better sleep onset after arriving home.
2. **Healthy Eating.** Pack healthy snacks—like fresh fruit, nuts, and yogurt—for overnight shifts, and stay well hydrated both on and off duty. Preparing balanced meals in advance for post-shift consumption can promote restfulness. Foods rich in complex carbohydrates and protein (eg, oatmeal with nuts, whole grain toast), help stabilize blood sugar and support serotonin release, which facilitates sleep initiation.³
3. **Sleep Conducive Environments.** Work with program and SI leaders to create a sleep conducive environment for overnight trainees. The same environment principles apply to your home, for sleep after night shift work. Use blackout curtains, and maintain a cool room temperature, ideally around 64-72°F (18-22°C), which has been linked to improved sleep quality.⁴
4. **Psychological Health.** Incorporate mindfulness and relaxation techniques such as deep breathing, meditation, and progressive muscle relaxation. Practices like deep tissue massage or myofascial release can also help reduce tension and promote sleep recovery. Staying socially connected is essential: combat isolation from night shift work by calling friends or loved ones during exercise or other activities. Practice self-compassion, prioritize rest, and recognize that recovery is key to sustaining long-term performance and well-being.

5. **Wellness Committee.** Encourage your existing (or start a) wellness committee to advocate for practical resources that improve trainee sleep and recovery. For example, develop and distribute sleep kits containing items such as sleep masks, ear plugs, a “Do Not Disturb” sign, a sleep hygiene resource guide, and information on rideshare reimbursement. Support workflow-focused interventions and healthy eating options before and during work periods.

References and Resources

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