

Staying Rested as a Resident



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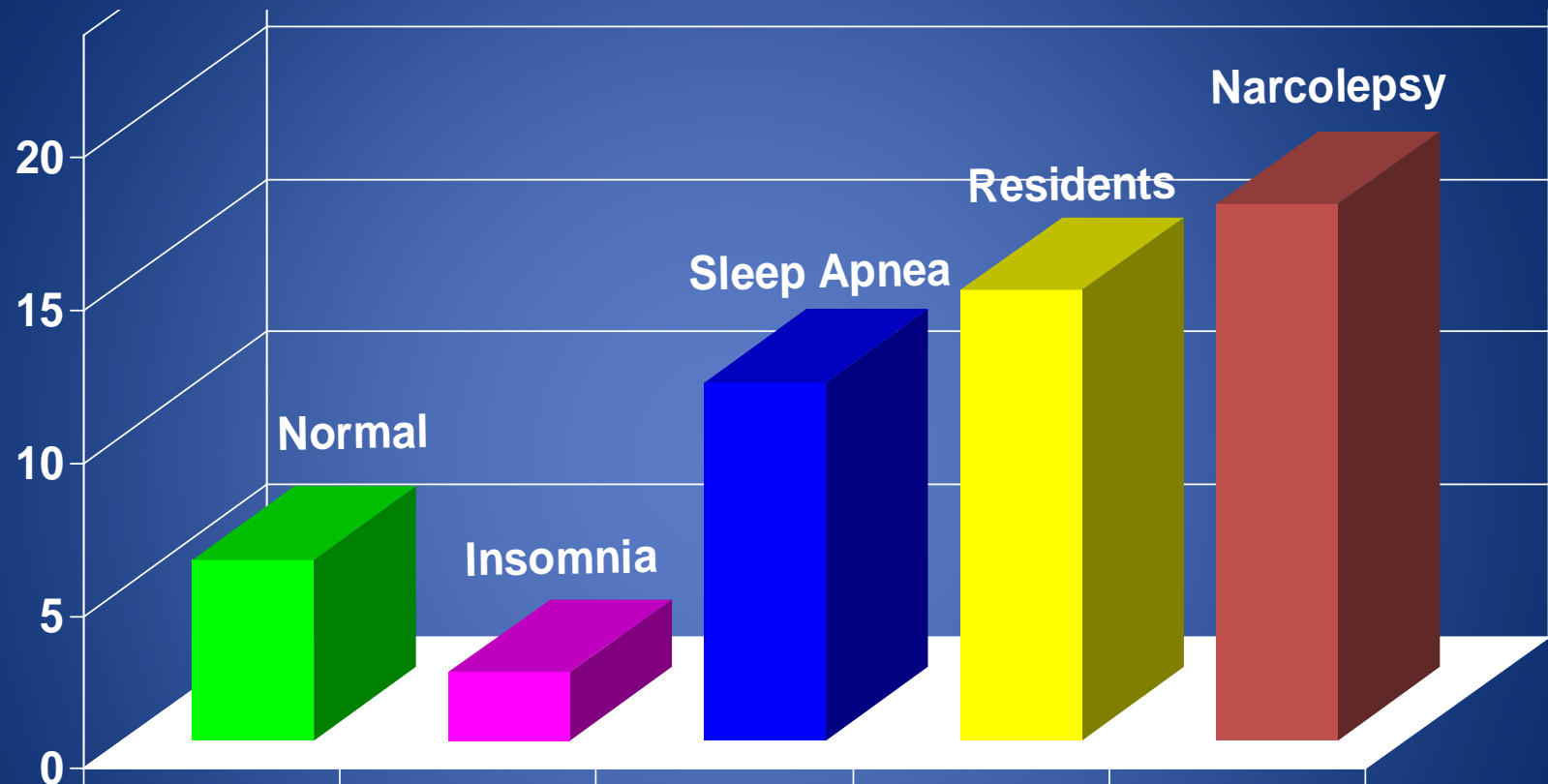
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“Patients have a right to expect a healthy, alert, responsible, and responsive physician.”

*January 1994 statement by American College of Surgeons
Re-approved and re-issued June 2002*

Epworth Sleepiness Scale



	Normal	Insomnia	Sleep Apnea	Residents	Narcolepsy
■ Mean	5.90	2.20	11.70	14.70	17.50

Sleepiness in residents is equivalent to that found in patients with serious sleep disorders.

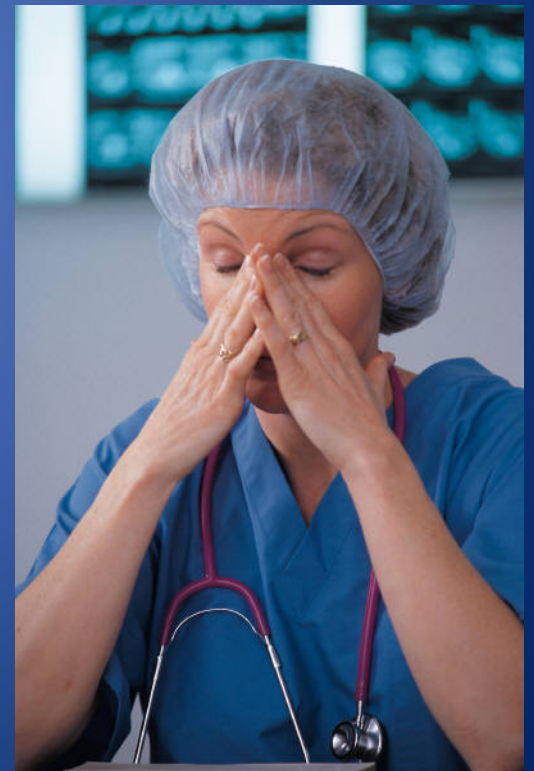
Objectives

- Describe the symptoms, contributing factors, and effects of sleep deprivation & poor sleep quality
- Develop an action plan for improving sleep quality
- Create an individualized strategy for managing duty hours in a healthy way



Symptoms

- People with sleep deprivation will commonly have a decline in work performance and also present as:
 - anxious
 - forgetful
 - easily distracted
 - sad
 - more prone to have accidents



The challenge of shift work

- 75 % of people who work at night report feeling drowsy at work
- Rotating shifts between day, night and evening often result in disturbed sleep and reduced alertness
- Disruptions in sleep can lead to change in mood including increased irritability

Basic facts

- Insomnia is the most frequent health complaint following pain and headaches.
- 1/3 of adults experience chronic insomnia
- 1/2 of adults have experienced insomnia at one point in their lives
- Twice as common in women as in men
 - May be attributed to women being more likely to report symptoms of insomnia to their physician

Types of insomnia

- The definition of insomnia is difficulty falling asleep or staying asleep that occurs 3 times per week for at least a month
 - Initial: difficulty falling asleep
 - Middle: difficulty sleeping through the night without waking up and difficulty going back to sleep
 - Terminal: early morning awakening

The effects of substance use

- **Alcohol**

- Common “nightcap” myth
 - Easier to fall asleep
 - Suppresses deep sleep
- Produces mild withdrawal symptoms, causing fragmented sleep (decreased REM sleep) and early morning awakenings

The effects of substance use

- Caffeine

- Stimulant that promotes alertness and reduces fatigue
- Can produce nervousness, irritability, and shakiness
- Works in as little as 15 minutes and can last up to 6 hours leading to disturbed sleep

The effects of substance use

- **Nicotine**

- Similar effects to caffeine including increased heart rate and increased amounts of stress hormones
- Stimulant effects can last for several hours after smoking a cigarette leading to poor sleep
- Insomnia ranks as one of the major health complaints of smokers

Common “remedies”

- People with sleep deprivation will often engage in following habits to promote sleep:
 - Going to bed earlier and spending more time in bed to catch up on sleep
 - Trying to force themselves to go to sleep
 - Attempt to relax in bed by reading or watching television
 - Take naps
 - Use alcohol to promote sleep and caffeine to lessen daytime fatigue
 - Reduce exercise because of fatigue from sleep deprivation

All of the above worsen symptoms of sleep deprivation!

Rx: Improving sleep quality

- Avoid **caffeine, nicotine, alcohol, and chocolate** several hours before bedtime
- A fixed sleeping and waking schedule for all 7 days a week (not always possible)
- Daily exercise (but not before bedtime)
- Relaxation techniques
- Development of a series of behaviors associated with bedtime (“a sleep ritual”)
- Avoid exposure to electronic light 60 minutes before bedtime

Rx: Improving sleep quality

- Restrict time spent in bed to actual amount of time spent asleep
- Go to bed only when sleepy
- Leave the bedroom if you're not sleeping within 15-20 minutes.
- Avoid a visible bedroom clock with lighted dial. Checking the time will increase anxiety and further delay sleep
- Avoid daytime naps



Sleep hygiene

- Enhance the bedroom environment
 - “Dark and cool”- sleep is better in a cool room (65-68F) and with the least light present
 - White noise machine or air conditioner produces soothing sounds
 - **Comfort is key! Comfortable mattresses and pillows are essential for a good night’s rest**

Assessment

- Recall your sleep habits for the last 3 days
- Sleep diary
 - What time did you get into bed?
 - How long did it take you to fall asleep?
 - How many times did you awaken during the night?
How long were you awake?
 - What time did you get out of bed?
 - Approximately how many hours did you sleep each night?
 - Rate the quality of each night's sleep on a 1-5 scale
 - Note any barriers to good sleep

Discussion

- 3 common scenarios causing sleep deprivation for residents:
 - Night shifts
 - Sleeping post-call
 - Busy months

- What's difficult about each?
- What are some solutions people have developed for getting better rest on these rotations?



Healthy Sleep Habits: Prior to Sleep Loss

Get adequate (7 to 9 hours) sleep *before* anticipated sleep loss.

Avoid *starting out* with a sleep deficit!



Napping

Pros: Naps temporarily improve alertness.

Types: Preventive (pre-call)

Operational (on the job)

Naps as short as 15 minutes can ameliorate performance decrements if provided at 2-3 hour intervals

Timing:

- if possible, take advantage of circadian "windows of opportunity" (2-5 am and 2-5 pm)


Caffeine

- The strategic use of caffeine involves ingestion at times that will promote alertness and performance during periods of vulnerability.
- A significant performance and alertness boost can be obtained from 200 mg of caffeine, with positive effects at doses ranging from 100 to 600 mg.

Caffeine content

Red Bull	80 mg
Jolt	72 mg
Mountain Dew	55 mg
Diet Coke	46 mg
Iced Tea (black)	40-60 mg
Green Tea	35 mg

Coffee

Starbucks <i>Venti</i>	550 mg	
Starbucks <i>Grande</i>	375 mg	
Starbucks <i>Tall</i>	250 mg	
Espresso (2 oz)	100 mg	
Instant coffee	65-100 mg	

Managing shift work

- Guidelines to minimize disruption:
 - Maintain the same sleep-wake schedule on days off to synchronize your sleep rhythms
 - Allow sufficient time to wind down after work. If you finish work at 8 am, don't force yourself to be asleep by 9 am
 - Ensure that your sleep won't be interrupted by telephones, people, street noises or doorbells. Use earplugs or fan to reduce noise

Managing shift work

- Guidelines continued:
 - When preparing for a shift change, adjust your bedtime and wake-up times a few days prior to new shift
 - Avoid exposure to bright light during the few hours before bedtime. Wearing dark glasses when leaving work in the morning may prevent sunlight from increasing alertness level.
 - Avoid stimulants during the few hours before bedtime

Medications

- Always explore nonpharmacologic treatment before considering pharmacologic treatment
- Not intended for treatment of chronic insomnia
- Tolerance and withdrawal may occur

Free Ride Home!

Residents can use Lyft for a ride home with a next-day return trip.

PLEASE NOTE:

- 1) The pick up from any affiliated training site at which residents/fellows are rotating.
- 2) Drop off can only be at a residential address.
- 3) All rides will be audited.

Sleep well!

References

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