

Insomnia and Sleep Hygiene Counseling for Family Physicians

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Thomas Jefferson University
HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

Educational Objectives

- *The objective of this session is to gauge your **knowledge**, examine your **attitudes**, and test your **practices** of sleep hygiene teaching for your patients.*
- *We hope to improve your skills in **examining patients' sleep habits** and counseling them toward more effective sleep.*
- *Lastly, we hope these **skills can be retained** long past the immediate effect of our teaching session.*

Agenda

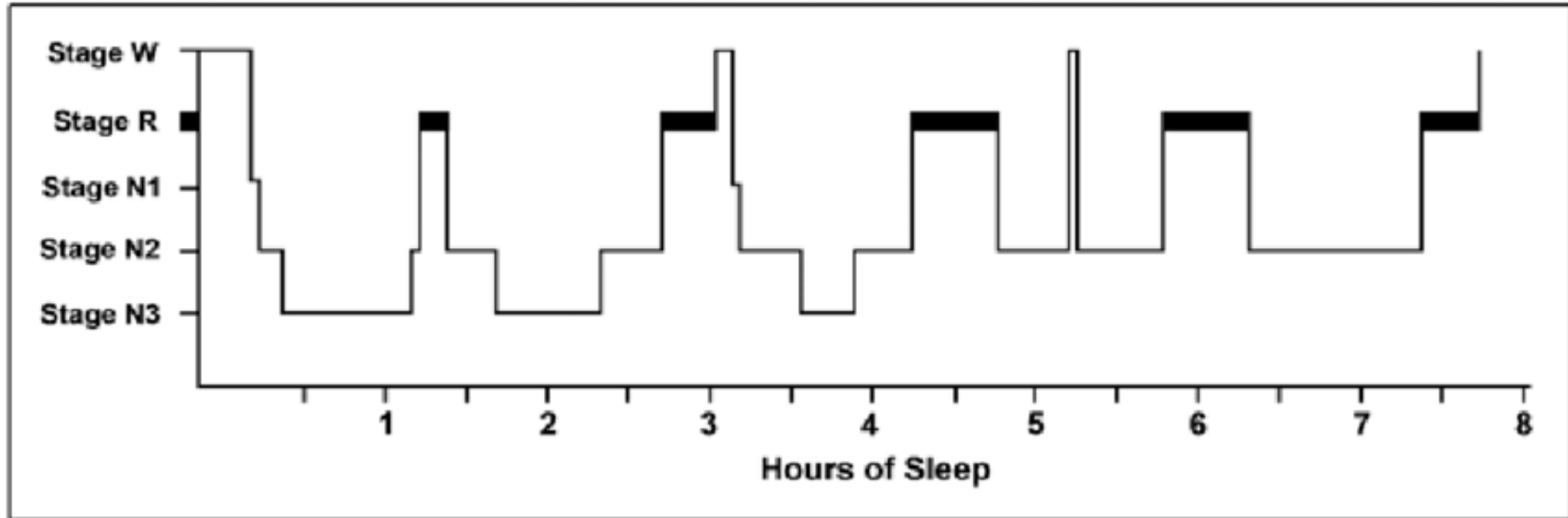
- *Pre-assessment*
- *Background - Insomnia*
- *Pathophysiology*
- *Evidence-based Insomnia Treatment*
- *Common Scenarios in Sleep Hygiene Counseling*
- *Q&A*
- *Post-assessment*

Pre-Assessment

- <https://forms.gle/3ggqtkPDAjUVeN759>

The background of the image is a sky with a teal-to-blue gradient. The lower half of the image is filled with large, white, fluffy cumulus clouds. The text "WHAT IS SLEEP?" is centered in the upper half of the image, overlaid on the teal sky.

WHAT IS SLEEP?



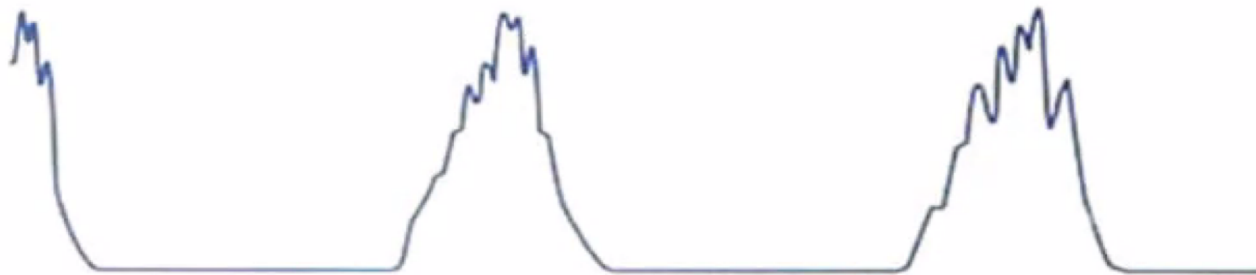
Hypnogram

Stages of Sleep

ENVIRONMENTAL
LIGHT
INTENSITY



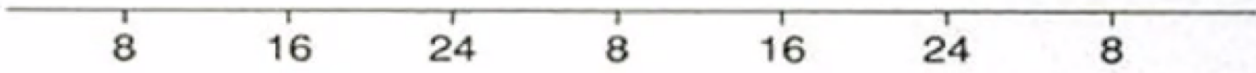
PLASMA
MELATONIN
CONCENTRATION



SLEEP-WAKE
CYCLE



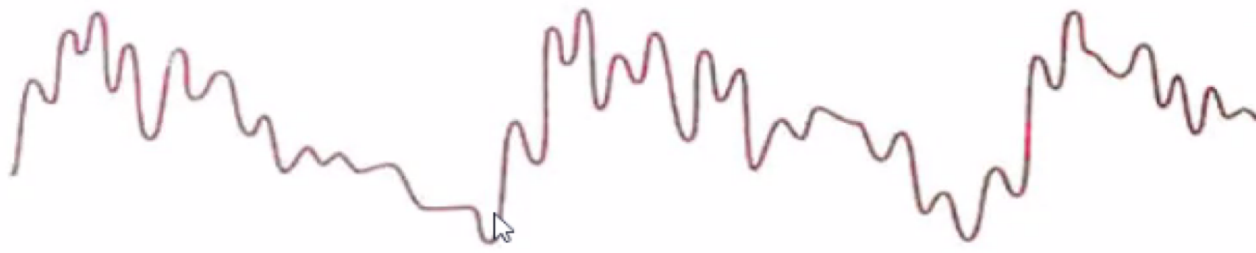
TIME OF DAY

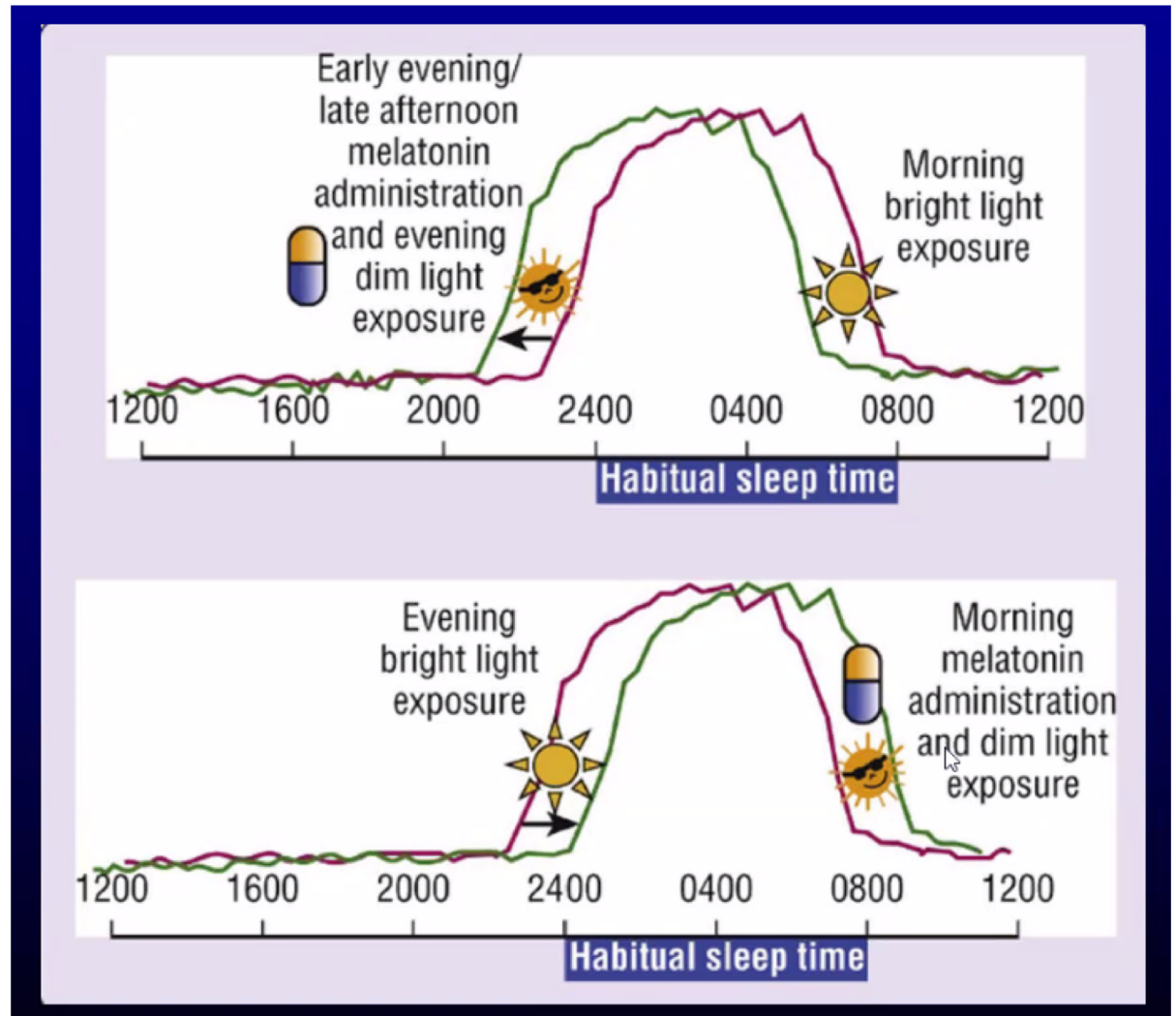
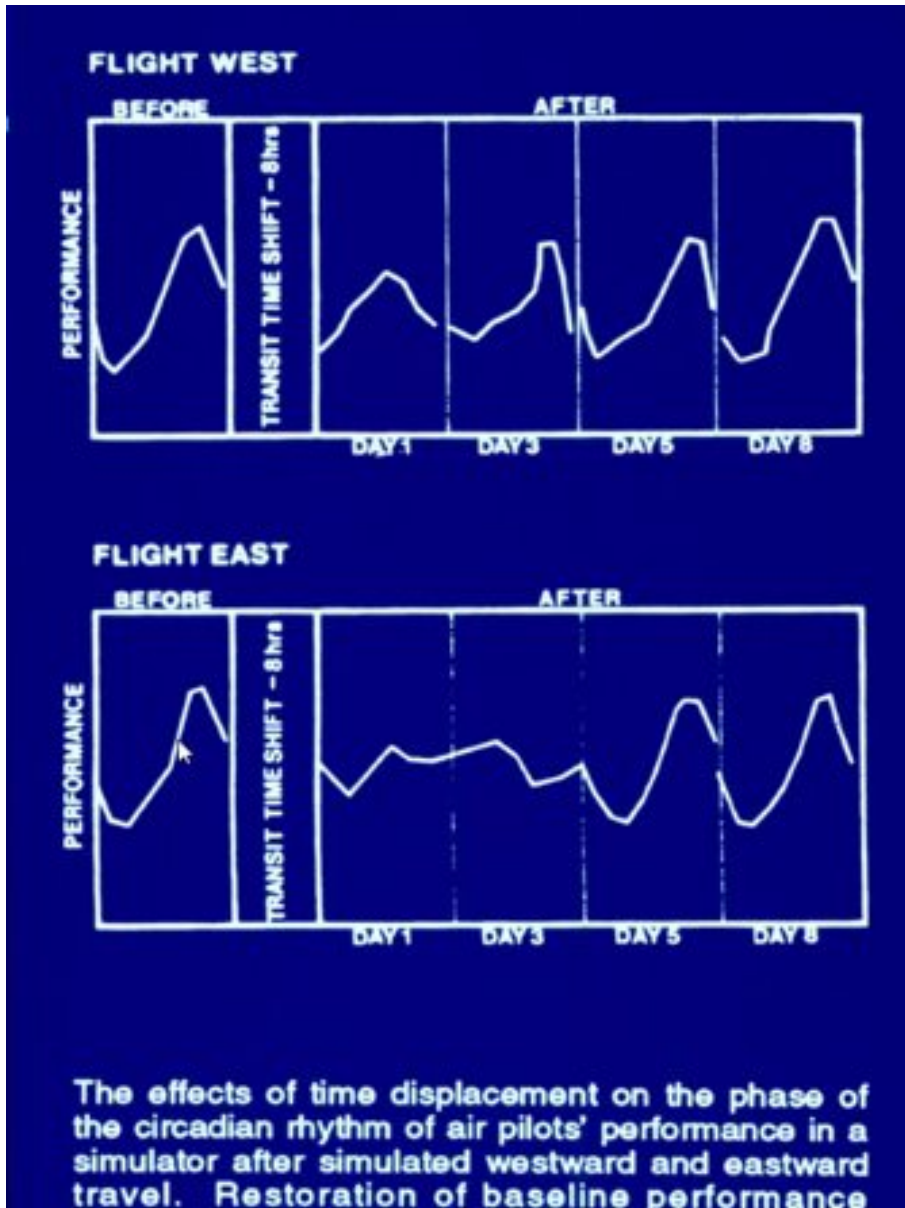


BODY
TEMPERATURE



PLASMA
CORTISOL
CONCENTRATION





Comorbidities Associated With Shift Work

- Cardiovascular disease and stroke^{1,2}
- Gastrointestinal disturbances³
- Cancer^{4,5}
- Diabetes and metabolic syndrome⁶⁻⁸
- Depression⁹
- Sleep disorders, including shift work disorder^{10,11}
- Reproductive health issues¹²

1. Brown DL, et al. *Am J Epidemiol*. 2009;169(11):1370-1377.

2. Knutsson A, et al. *Lancet*. 1986;2(8498):89-92.

3. Pietrojusti A, et al. *Occup Environ Med*. 2006;63(11):773-775.

4. Kubo T, et al. *Am J Epidemiol*. 2006;164:549-555.

5. Megdal SP, et al. *Eur J Cancer*. 2005;41:2023-2032.

6. Esquirol Y, et al. *Chronobiol Int*. 2009;26(3):544-559.

8. Toshihiro M, et al. *Diabet Med*. 2008;25(10):1211-1217.

9. Drake CL, et al. *Sleep*. 2004;27(8):1453-1462.

10. Laudенcka A, et al. *J Physiol Pharmacol*. 2007;58 (suppl 5):345-347.

11. American Academy of Sleep Medicine. *International Classification of Sleep Disorders*. 3rd ed. Chicago, IL: American Academy of Sleep Medicine; 2014.

12. Nurminen T. *Scand J Work Environ Health*. 1998;24:28-34.

	AASM Level of Recommendation
Planned sleep schedules	Standard
Timed light exposure	Guideline
Timed melatonin administration	Guideline
Hypnotics	Guideline
Stimulants	Option
Alerting agents	Guideline

Caffeine Content of Various Beverages and OTC Preparations

Product	Serving Size	Caffeine (mg)
Cola	8 oz	30 – 45
Tea	8 oz	10 – 70
Orange soda	8 oz	0 – 40
Mountain Dew	8 oz	57
Red Bull	330 ml	80
Drip Coffee	7 oz	110 – 175
Starbucks Grande	16 oz	320
No-Doz	1 tablet	200
Vivarin	1 tablet	200
Excedrin Extra Strength	2 tablets	130

enter for Science in the Public Interest. Web site. http://www.cspinet.org/new/cafchart.htm#table_coffees.
cessed July 27, 2011.

Evidence-Based Insomnia Treatment

- Insomnia is defined as a persistent **difficulty with sleep** initiation, duration, consolidation, or quality that occurs **despite adequate opportunity** and circumstances for sleep, and results in some form of **daytime impairment**.
- *Note:* Variations in diagnostic criteria exist between the ICSD-3, DSM-5, and ICD-10 definitions, but the core features are the same.

Evidence-Based Insomnia Treatment

Risk Factors

- Female gender (esp. pregnancy, peri/post-menopause)
- Old age
- Solitude (divorced, single, widowed)
- Shift workers
- Unemployed or low socioeconomic status
- Comorbid medical and psychiatric disorders
- Substance abuse
- Genetic vulnerability

Evidence-Based Insomnia Treatment

Evaluation

- Nighttime symptoms
- Daytime symptoms
- Sleep history
- Contributing medications
- Laboratory evaluation

Evidence-Based Insomnia

Treatment

- **Nonpharmacologic**
 - CBT
- **Pharmacologic**
 - BZD
 - Non-BZD
- **Behavioral**
 - Sleep Hygiene

Generic (Trade) Name	Dose Range (mg)	Onset	Half-life(hrs.)
Benzodiazepines			
Estazolam (ProSom)	1-2	Rapid	10-24
Flurazepam (Dalmane)	15-30	Rapid	47-100
Quazepam (Doral)	7.5-15	Rapid	39-73
Triazolam (Halcion)	0.125 - 0.25	Rapid	1.5-5.5
Temazepam (Restoril)	7.5-30	Slow	3.5-18.4
Nonbenzodiazepine BZ Receptor Agonists			
Zolpidem (Ambien)	5-10	Rapid	2.5-2.6
Zolpidem ER (AmbienCR)	6.25-12.5	Rapid	2.8
Zolpidem sublingual (Eduar)		Very Rapid	2.5-2.6
Zolpidem sublingual (Intermezzo)	1.75(female) 3.5(male)	Very Rapid	2.5-2.6
Zolpidem spray (Zolpimist)	5mg/spray	Very Rapid	2.5-2.6
Eszopiclone (Lunesta)	1-3	Rapid	6
Zaleplon (Sonata)	5-20	Rapid	1
Melatonin Receptor Agonist			
Ramelteon (Rozerem)	8	Rapid	2-5
Antidepressant			
Doxepin (Silenor)	3-6	Moderate	15
Orexin Receptor Dual Agonist			
Suvorexant (Belsomra)	5-20	Rapid	12



SLEEP HYGIENE

Environmental + personal habits that promote quality sleep

THINGS TO DO...



- Get out of bed at the same time
- Bright light during the day
- Exercise in the morning or afternoon
- Set aside a "worry" time
- Establish a comfortable sleep environment
 - Dark
 - Cold
 - Quiet
- Do something relaxing prior to bedtime



COMMON SCENARIOS

- Alcohol
- Caffeine, nicotine, and other stimulants
- Exposure to bright light during the night
- Rigorous exercise within 3 hours of bedtime
- Heavy meals or drinking within 3 hours of bedtime
- Using your bed for things other than sleep (or sex)
- Napping, unless a shift worker
- Watching the clock
- Trying to sleep
- Noise

Resources



HOME > DISEASES & CONDITIONS > INADEQUATE SLEEP HYGIENE

INADEQUATE SLEEP HYGIENE

[Our Doctors](#)

[Tests & Treatments](#)

[Programs & Services](#)

[Frequently Asked Questions](#)

Inadequate Sleep Hygiene



Inadequate sleep hygiene is a form of insomnia primarily caused by bad sleeping habits. Many common factors may keep you awake at night, such as:

- Background noise
- Temperature extremes
- Uncomfortable bedroom
- Excessive napping
- Excessive time in bed
- Irregular bedtimes
- Sedentary lifestyle



5 Ways to Get a Good Night's Rest

If you are having trouble falling asleep and/or staying asleep, there are many ways to help you have a good night's rest:

1. Your bedroom should be dark, quiet and comfortable. You should also reserve the bedroom for sleeping, not for watching TV or doing work.
2. Go to bed and wake up at the same time every day, even on the weekends.
3. Avoid caffeine after lunchtime and avoid alcohol, eating and exercising a few hours before bedtime. These might lead to disruptions of your sleep.
4. Don't take naps, unless you are a shift worker or narcoleptic.
5. Don't sacrifice your sleep; make it a priority so that your body gets the rest it needs.

Make an Appointment

Call 1-800-JEFF-NOW (1-800-533-3669) to make an appointment with a Jefferson Health sleep specialist.

[SCHEDULE AN APPOINTMENT ONLINE](#)



TIPS FOR HEALTHY SLEEP

✗ NO



HEAVY FOOD



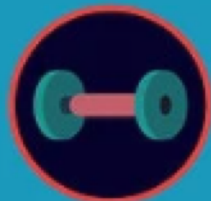
BLUE LIGHT



ALCOHOL, SMOKING



CAFFEINE



HARD TRAINING



STRESS



✓ YES



GET UP AT THE SAME TIME



EVENING WALKS



COMFORTABLE BED



COOL AND DARK ROOM



BEDTIME ROUTINE



RELAXING BATH

Post-Assessment

<https://forms.gle/RaKDya5nvWv7Fsan8>



Thank you!

Questions?



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