



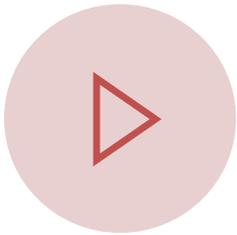
Sleep Disorders

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Learning Outcomes



TO UNDERSTAND
TYPICAL SLEEP
PATTERNS



TO UNDERSTAND THE
RELATIONSHIP AMONG
SLEEP, BEHAVIOR,
MENTAL HEALTH, AND
SUBSTANCE USE



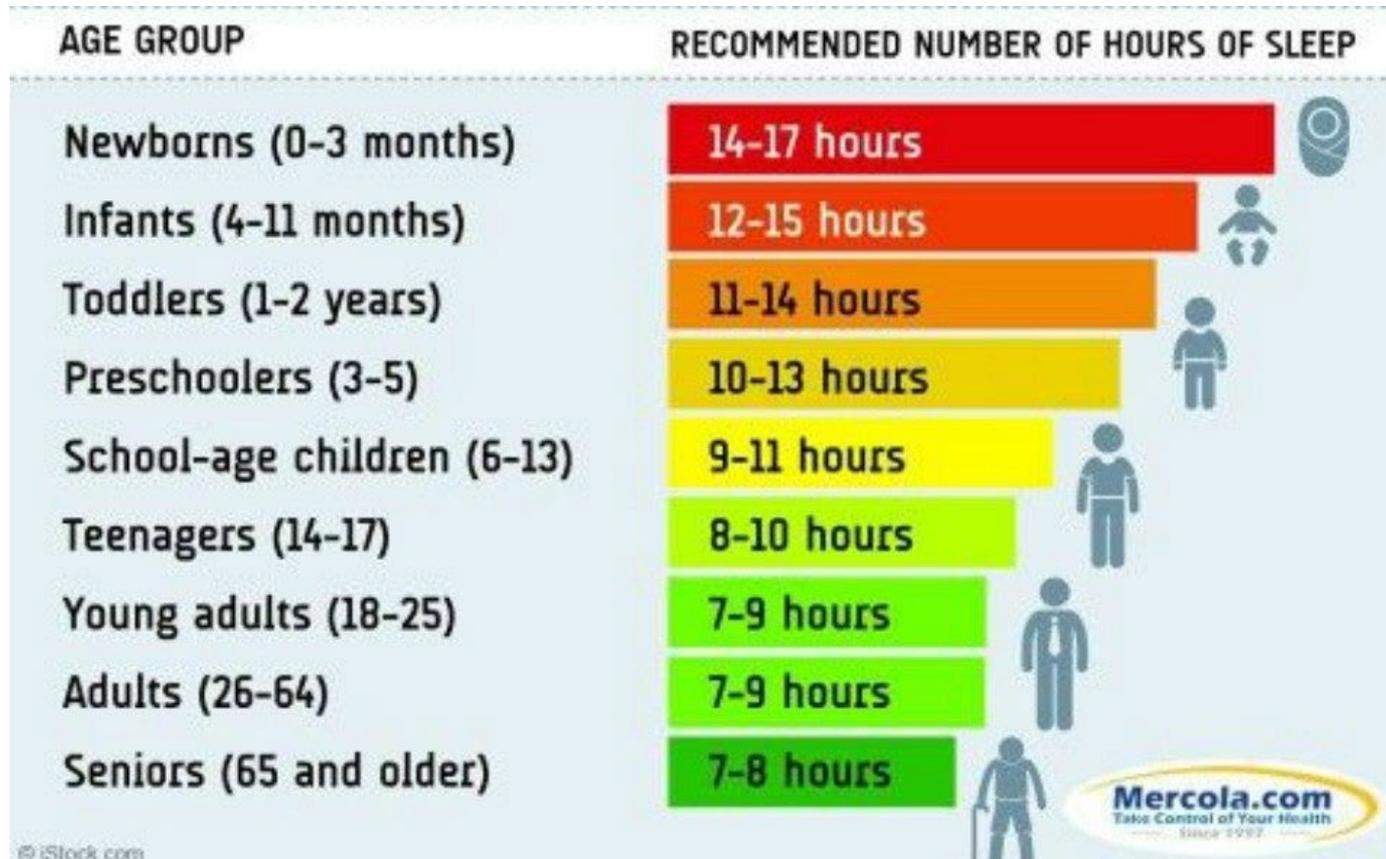
TO BE FAMILIAR WITH
THE PRESENTATION AND
ASSESSMENT OF
COMMON SLEEP ISSUES



TO BE ABLE TO MANAGE
COMMON SLEEP
DIFFICULTIES

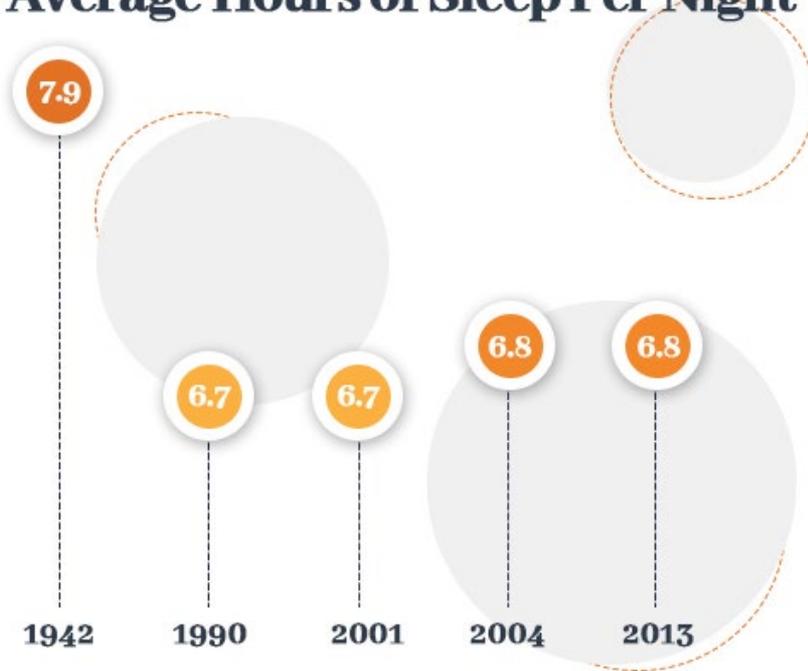


Average Sleep Times



Most people don't get recommended amount of sleep

Average Hours of Sleep Per Night



In 1942, Americans had **7.9 hours** on average hours per night compared to **6.8 hours** in 2013, which is a **13%** decrease.

Lack of Sleep costs the United States over **\$411 Billion** Annually, reported Fortune Magazine.

Healthy Sleep duration is more common among married people (**67%**), and lower in those who were never married (**62%**) or who were divorced, separated, or widowed (**56%**).

[8] Centers for Disease Control and Prevention

People with a college degree or higher have the most sleep (**72%**), while unemployed or those unable to work much lower (at **51** and **60%** respectively).

[8] Centers for Disease Control and Prevention

9 Million Americans take prescription drugs to help them fall asleep.

[29] NBC News



30% of adult U.S. population suffer from Insomnia and **10%** from chronic Insomnia, making it the most common sleep disorder.

[18] National Center for Biotechnology Information



37.9% of people reported unintentionally falling asleep during the day or at work in the last 30 days.

[17] Medscape



Sleep influences our whole body

Physical influences

- Increases accidents
- Reduces sex drive
- Ages your skin
- Gain weight

Mental effects:

- Increases depressive symptoms
- Impairs attention, alertness, concentration, reasoning, and problem solving
Don't learn as well.
- Makes your forgetful
- Impairs judgment (especially about sleep)

Health effects:

- Serious health problems (heart disease, heart attack, heart failure, irregular heartbeat, high blood pressure, stroke, diabetes)
- Increases risk of death



40% of all insomnia patients have a coexisting psychiatric condition.

[20] National Center for Biotechnology Information

Over 100 thousand deaths can be attributed to medical errors due to sleep deprivation.

[10] National Center for Biotechnology Information

Almost 20% of all car crash accidents and injuries are associated with sleepiness.

[11] National Center for Biotechnology Information



Sleep and substance use

Substances leading to insomnia

Sleep disorders as triggers for setbacks

Insomnia as a development factor for psychiatric and substance use disorders

Sleep medication abuse

Partnership for Drug-Free Kids

Compared with the general population, sleep disorders occur at a rate 5-10 times higher in those who experience a substance use disorder.





Insomnia Diagnosis

3 times a week for 3 months

Difficulty
falling
asleep

Difficulty
staying
asleep

Awakening
in the early
morning

**Despite
adequate
opportunity
and NOT
better
explained by
other
underlying
conditions**

Interference/Distress

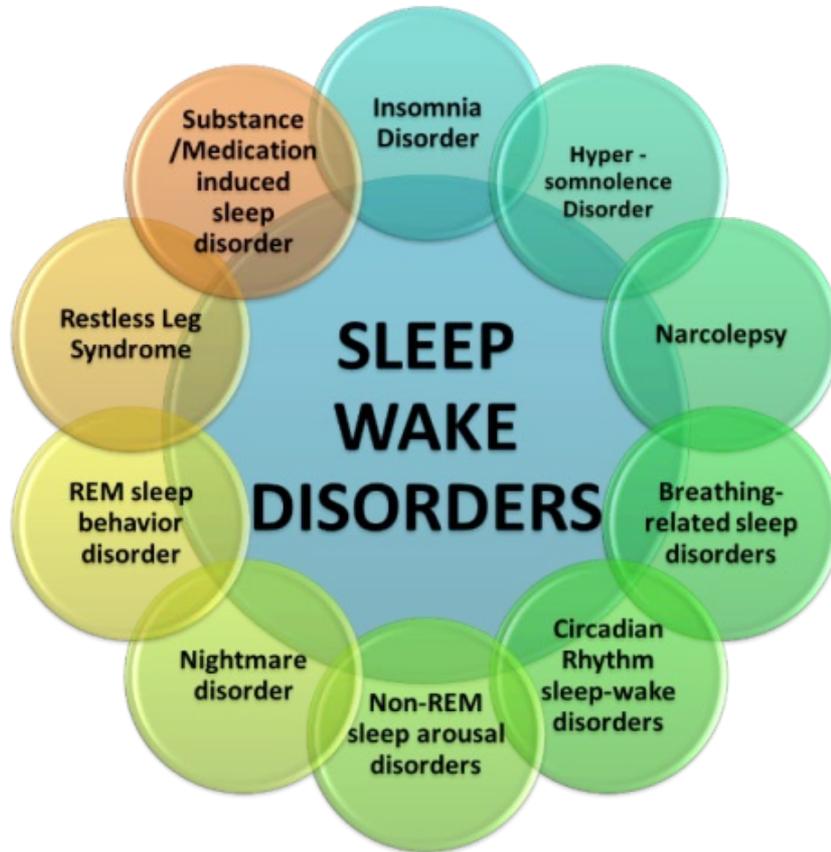
social

occupational

Educational
/academic

behavioral

Sleep/Wake Disorders and OSA



1. Snore
2. Tired
3. Obstruction
4. Pressure

1. BMI (>35 kg/m²)
2. Age (>50 y.o.)
3. Neck (>17in/16in)
4. Gender (> men)

Components of CBT for Insomnia

Therapy component	Description
Stimulus control	Set of instructions aimed at breaking conditioned arousal and strengthening the bed and bedroom as stimuli for sleep
Sleep restriction	Limiting the time allowed in bed to the patient's average reported actual sleep time and subsequently slowly increasing the time allowed in bed as sleep improves
Cognitive therapy	Targets beliefs and thoughts that directly interfere with sleep by increasing arousal in bed or indirectly by interfering with adherence to stimulus control and sleep restriction
Relaxation techniques	Diaphragmatic breathing, progressive muscle relaxation, and visual imagery to reduce psychic and somatic anxiety related to sleep
Sleep hygiene education	Limiting caffeine intake, avoiding alcohol before bed, incorporating daily exercise, and keeping the bedroom quiet, dark, and at a comfortable temperature



How to assess for sleep problems

Sleep Diary

Use this sleep diary to record the quality and quantity of your sleep; your use of medicines, alcohol, and caffeinated drinks; and how sleepy you feel during the day. Bring the diary with you to review the information with your doctor.

Fill out before going to bed	Today's date:	June 13*							
	Number of caffeinated drinks (coffee, tea, cola) and time when I had them today:	1 drink, 8 p.m.							
	Number of alcoholic drinks (beer, wine, liquor) and time when I had them today:	2 drinks, 9 p.m.							
	Nap times and lengths today:	3:30 p.m., 45 minutes							
	Exercise times and lengths today:	None							
	How sleepy did I feel during the day today? 1—So sleepy I had to struggle to stay awake during much of the day 2—Somewhat tired 3—Fairly alert 4—Alert	1							
Fill out in the morning	Today's date:	June 14*							
	• Time I went to bed last night: • Time I got out of bed this morning: • Hours spent in bed last night:	11 p.m. 7 a.m. 8							
	Number of awakenings and total time awake last night:	5 times, 2 hours							
	How long I took to fall asleep last night:	30 minutes							
	Medicines taken last night:	None							
	How alert did I feel when I got up this morning? 1—Alert 2—Alert but a little tired 3—Sleepy	2							



Sleep Hygiene and Stimulus Control

Sleep Hygiene

Purpose: Set predictable pattern for brain

- Wake up the same time each morning
- Avoid naps
- Avoid stimulants 4 hours before bed
- Avoid screens/work 2 hours before bed
 - Use red light programs/apps
<https://justgetflux.com>
- Avoid alcohol/smoking before bed
- Exercise regularly
- Relax before bed (soothing music/tea/etc.)
- Establish a routine for bedtime
- Turn your clock around and only use alarm
- Create a cool dark and quiet sleep environment

Stimulus Control

Purpose: Re-associate bed with relaxation

- Only use bedroom for sleep, sex, or sickness
- Sleep only when sleepy – not when tired
- Get out of bed if you do not fall asleep within 20 minutes and repeat as needed
 - Only go back to bed when sleepy not tired

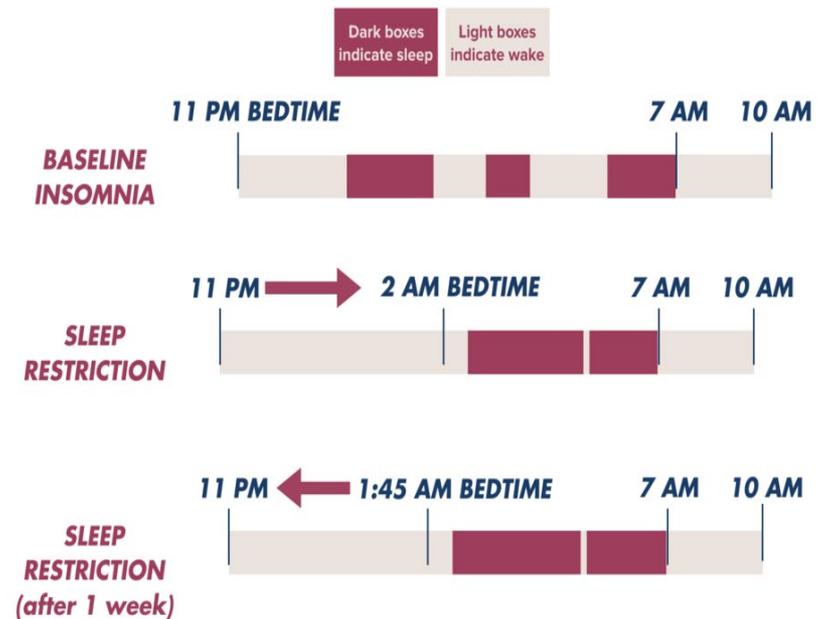
Sleep Restriction

Sleep Restriction

Purpose: Re-establish regular sleep habits

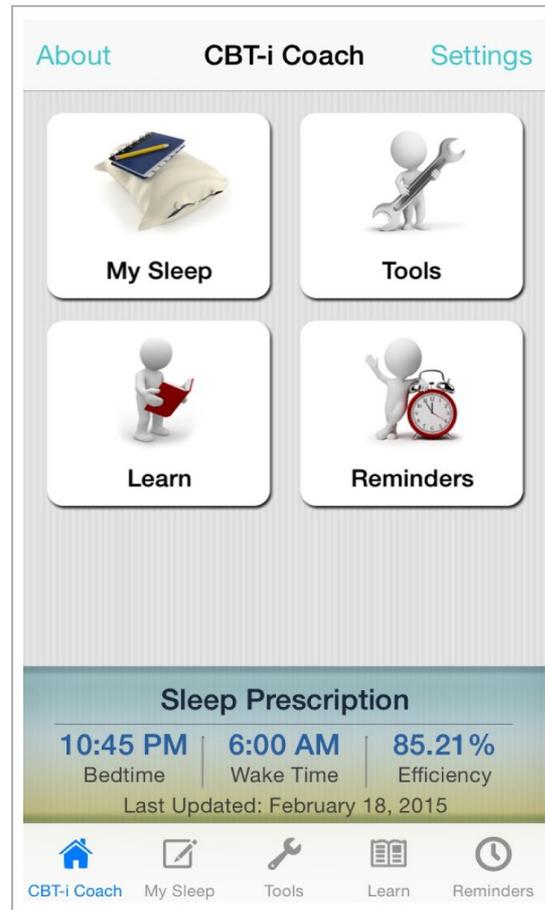
- Get observational “data” on sleep time during the first week or two weeks
- Use average sleep time (NOT time in bed) to create a new sleep schedule
- Set a wake time then work backwards to a bedtime based on the average sleep.
- Most important is that they agree to wake up the same time everyday
- Increase sleep time by 30 mins if they follow and are still sleepy
- Problem solve if pt has trouble staying awake
- No weekend breaks/catch up sleep

SLEEP RESTRICTION





Insomnia Treatment (app)



Contact information

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CBM Lab Website: CBMLab.org

Thank you to Dr. Melissa Cyders (slides provided by her)



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