



# Sleep Health and Aging

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ElderCare Connections  
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# Sleep Health

*“Sleep health is a **multidimensional** pattern of sleep-wakefulness, adapted to **individual, social, and environmental** demands, that promotes **physical and mental well-being.**”*

# Sleep health is **multidimensional**

## **Duration**

- Length
- Sufficiency

## **Quality**

- Restedness
- Satisfaction
- Architecture
- Consolidation

## **Efficiency**

- Number of awakenings
- Duration of awakenings
- Timing of awakenings

## **Timing**

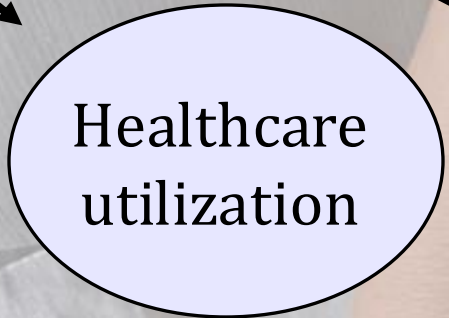
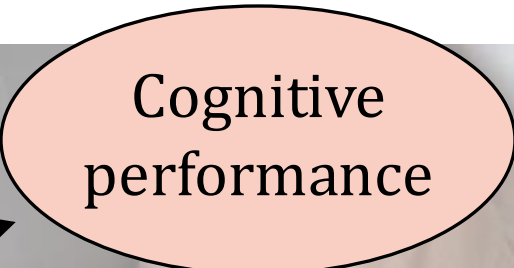
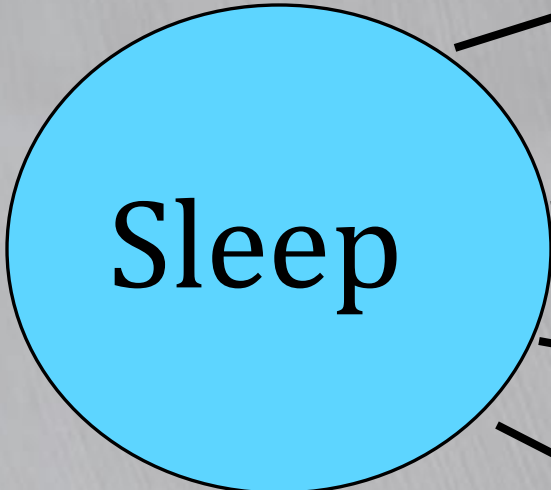
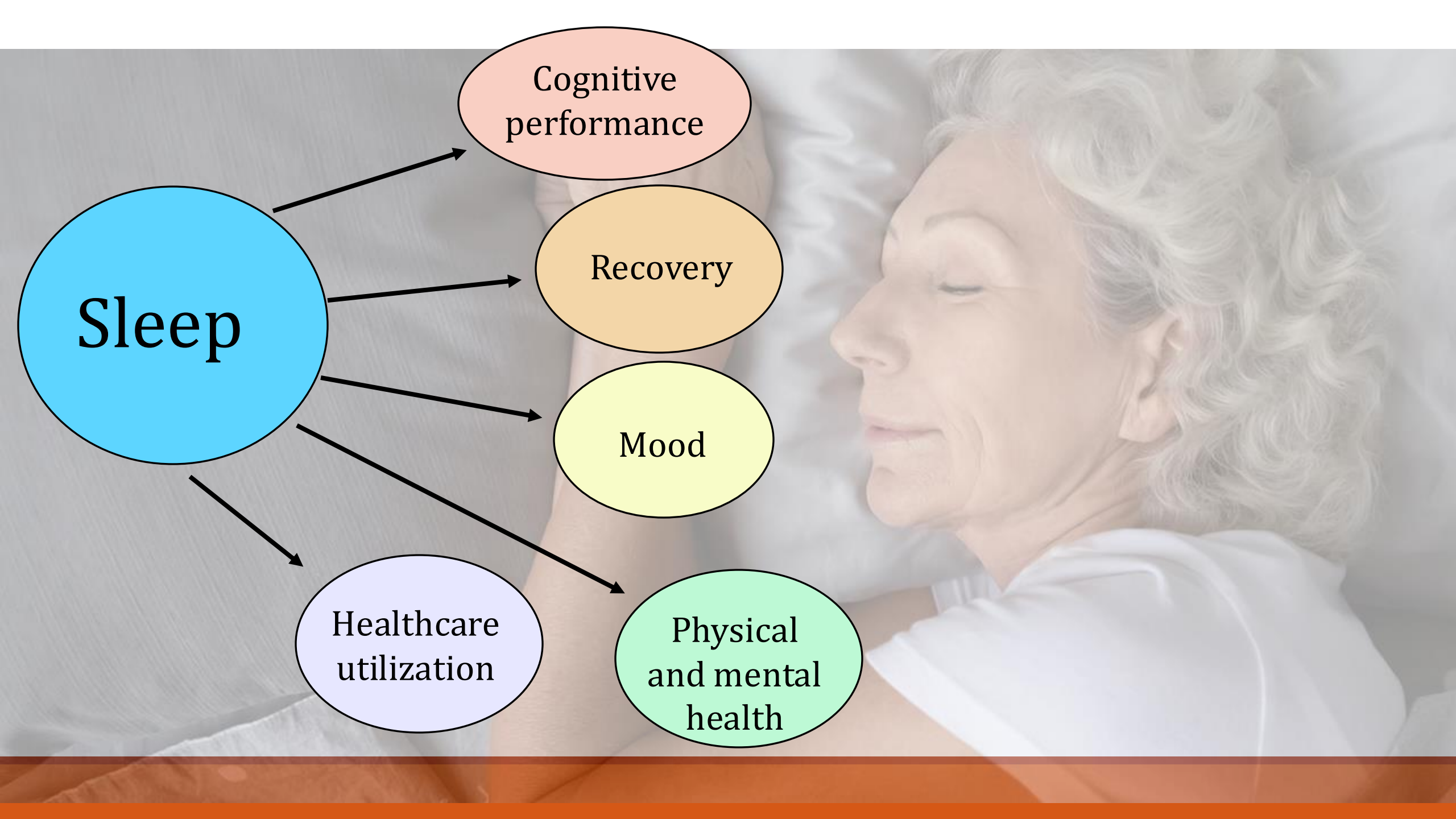
- Bedtime/Waketime
- Midpoint

## **Alertness/Daytime Functioning**

- Feeling refreshed
- Sleepiness
- Fatigue
- Mood
- Concentration

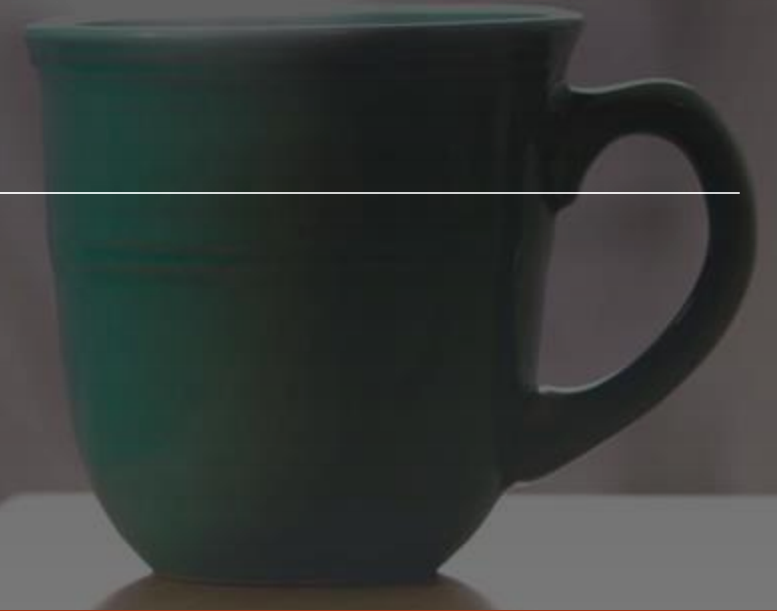
## **Variability/Regularity**

- In all of these dimensions!

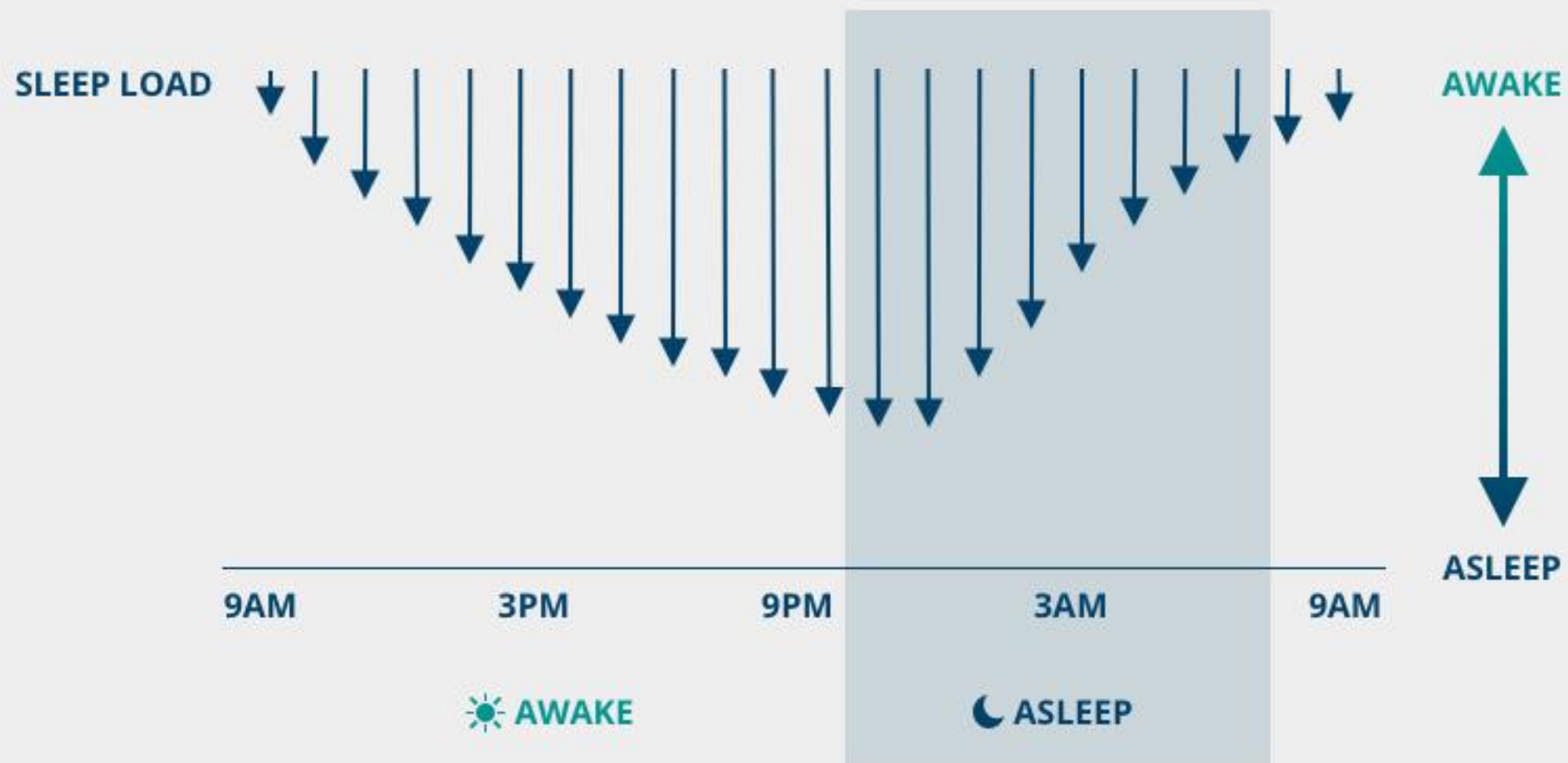


# Age-Related Changes in Sleep Health

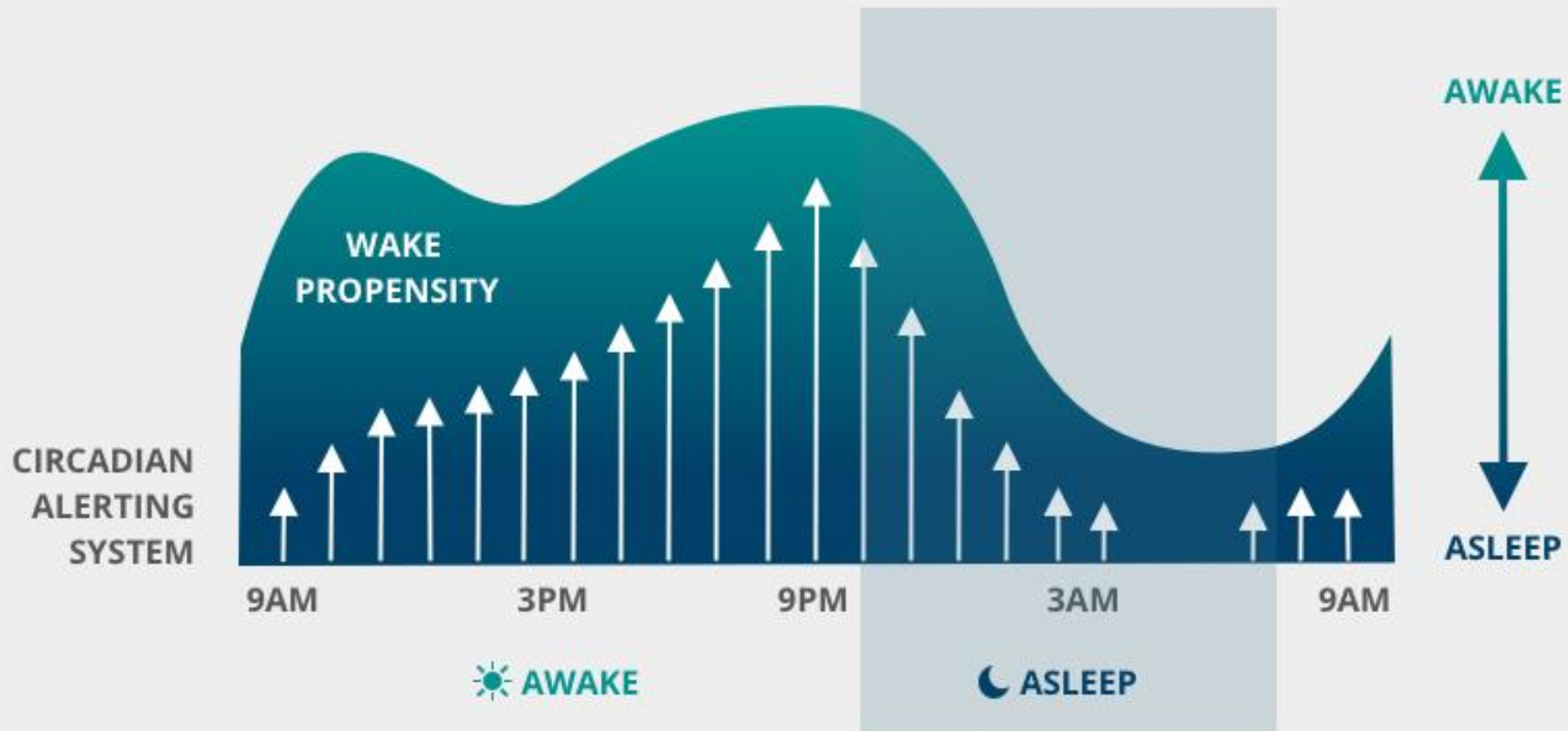
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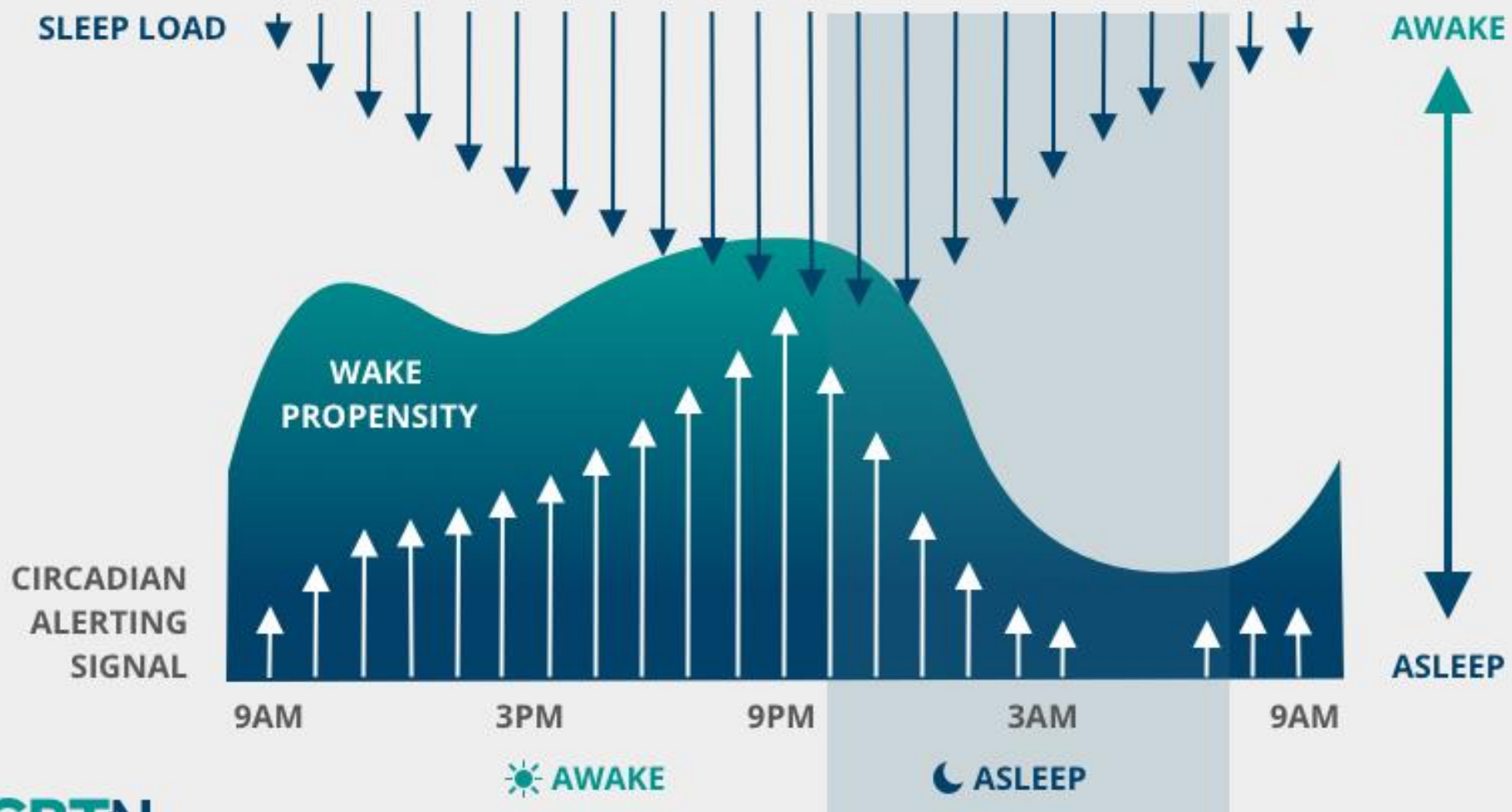
# SLEEP LOAD



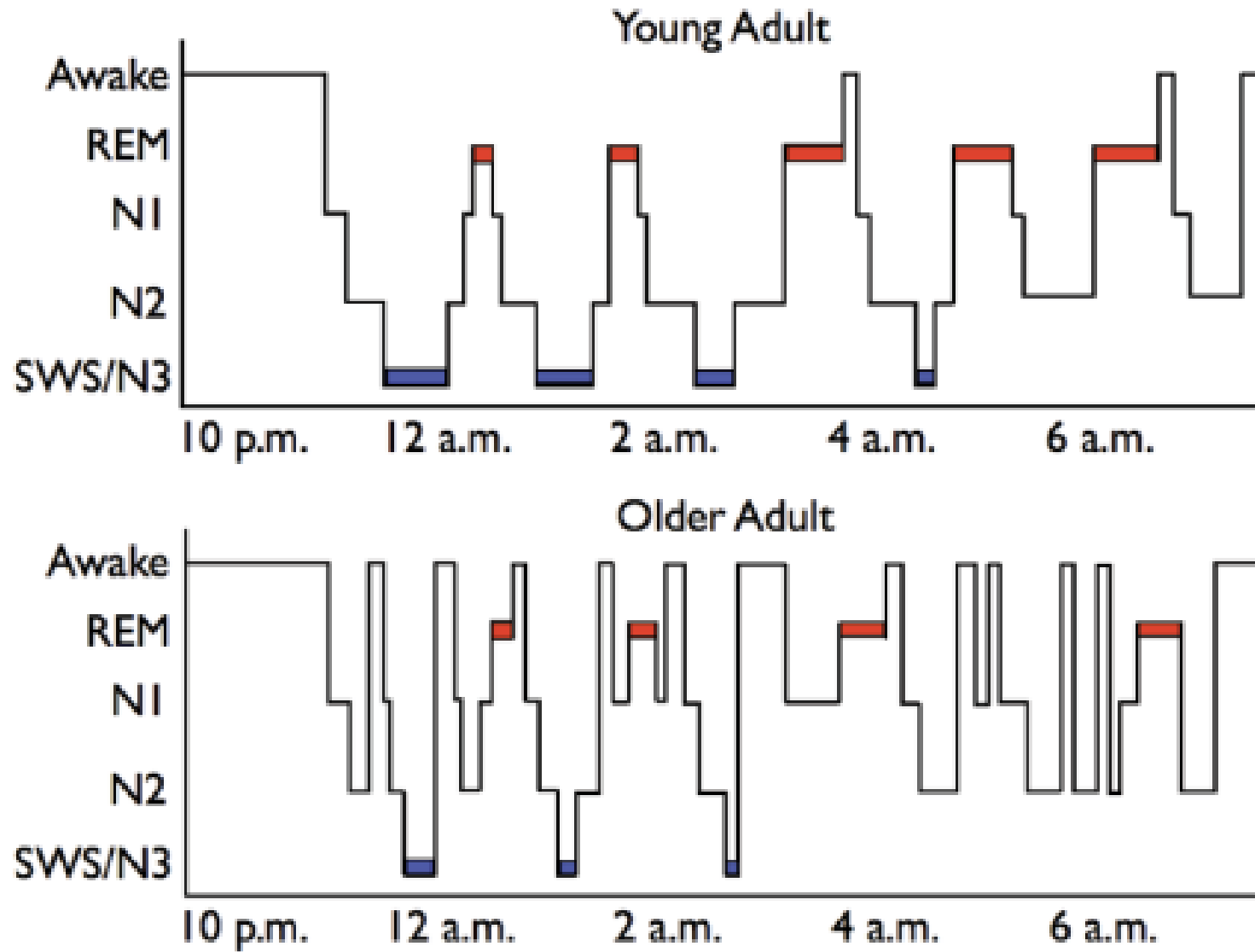
# WAKE PROPENSITY



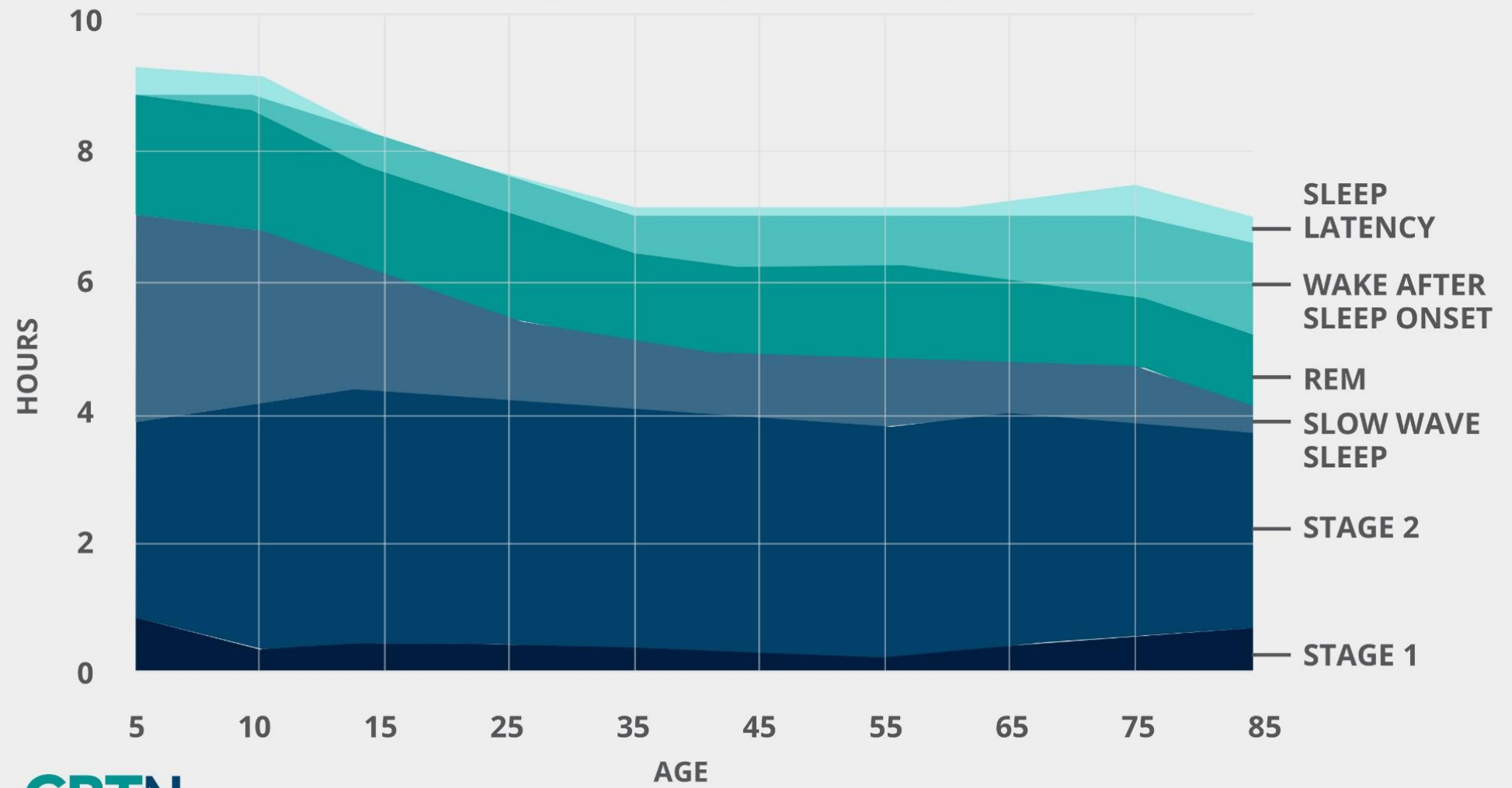
# CIRCADIAN AND HOMEOSTATIC REGULATION OF SLEEP



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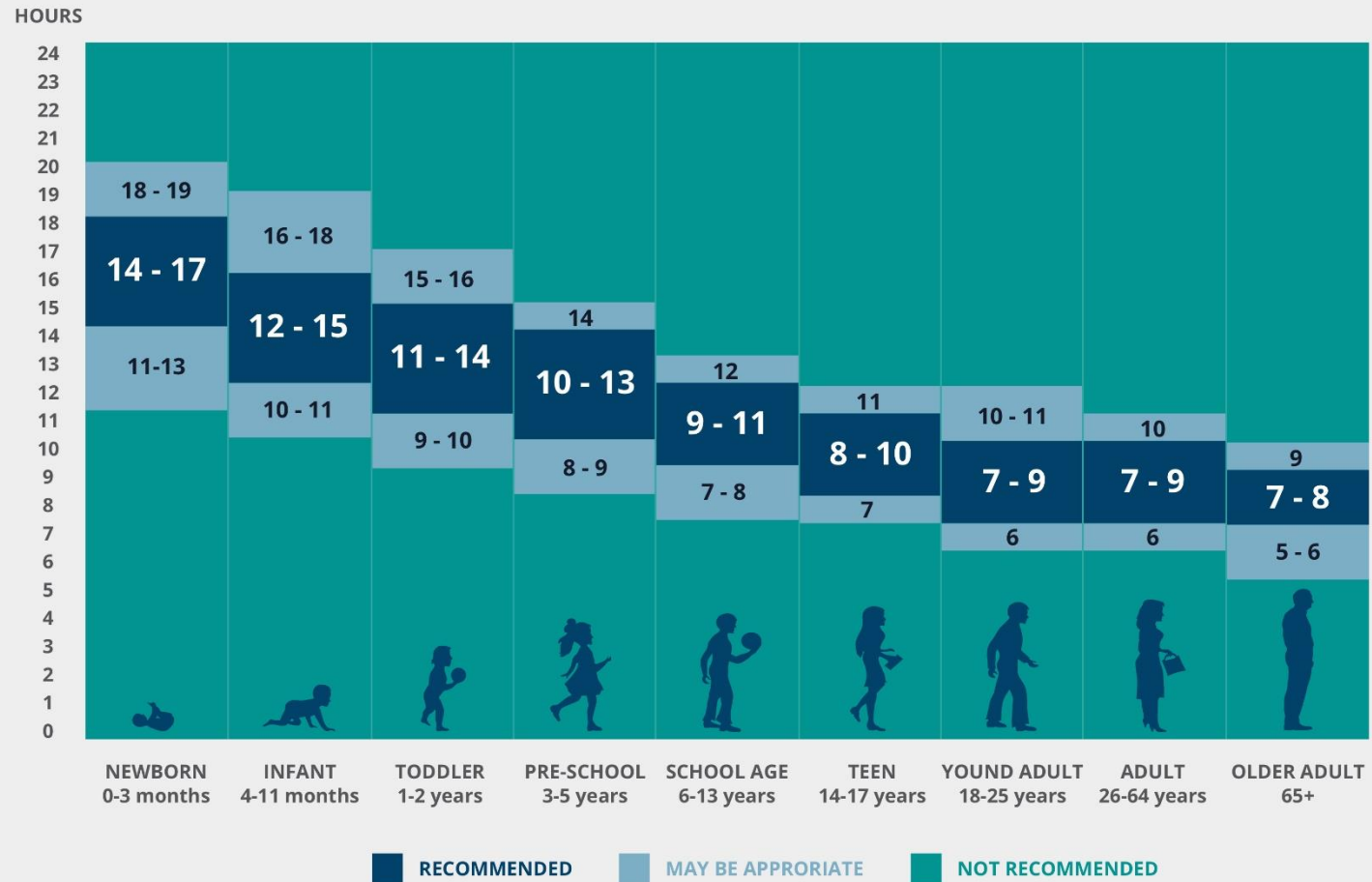


# SLEEP AND AGING



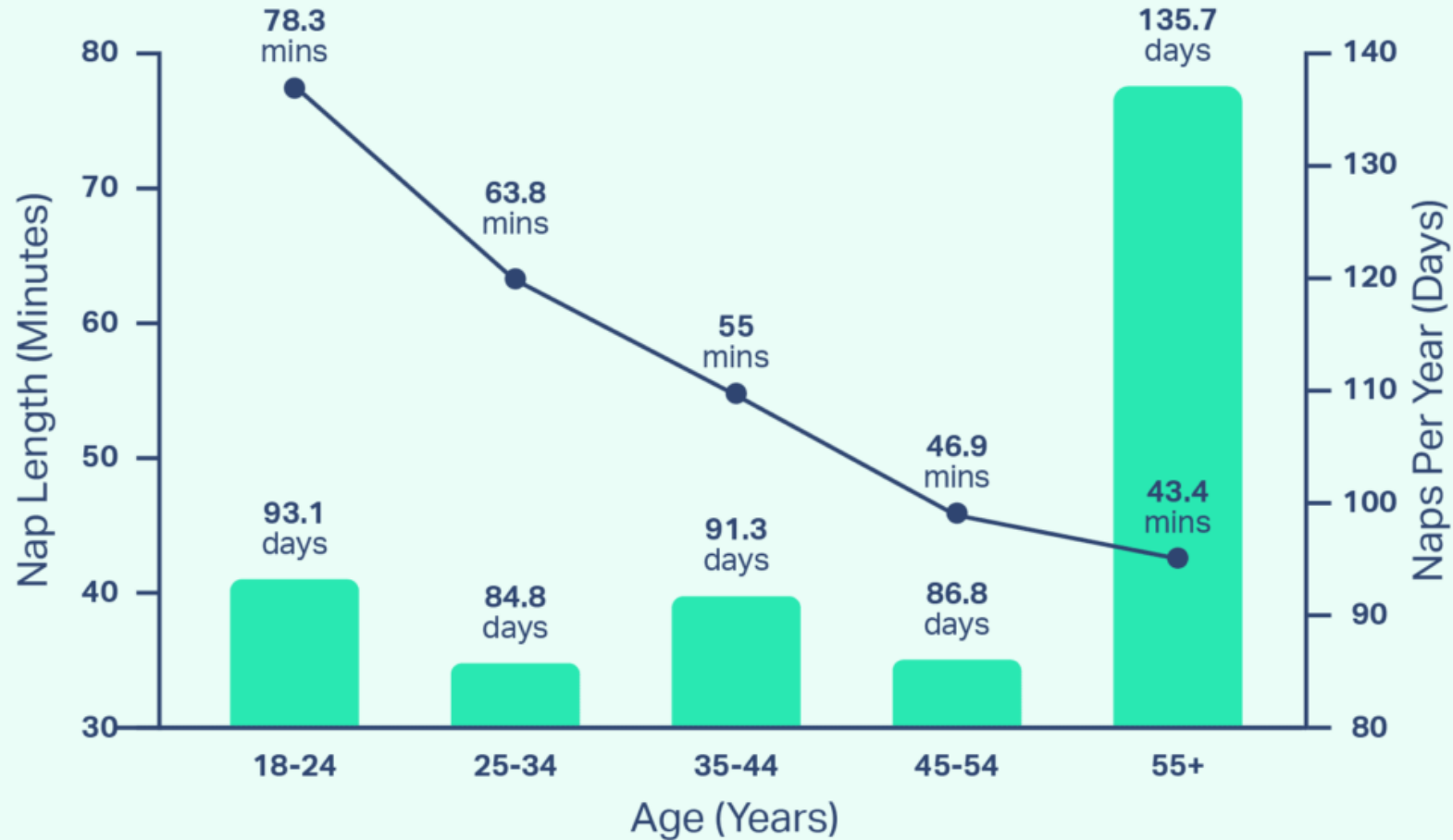
# SLEEP DURATION RECOMMENDATIONS

## NATIONAL SLEEP FOUNDATION



# How Naps Change as We Age

The older we get, the more often we nap. But our naps may be shorter, according to results of a summer 2022 survey.

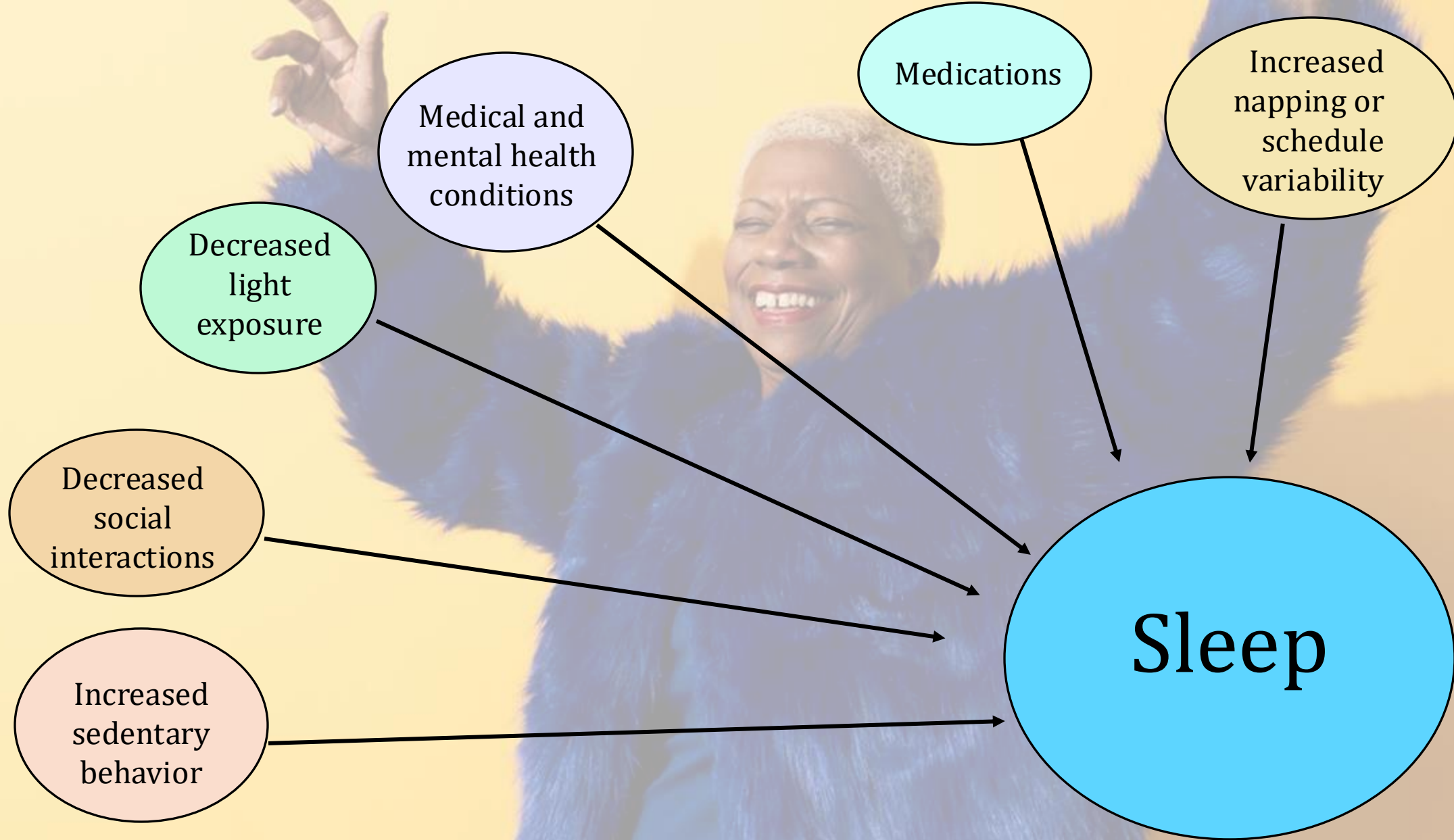


Sources: Sleep Cycle, SleepFoundation.org

# Summary: **Normal** Aging-Related Changes in Sleep

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- Circadian rhythm *advances* (moves earlier), circadian amplitude decreases
  - Harder to consolidate morning sleep
  - Lower drive for alertness in the evening
- Increased number and duration of awakenings
- Reduced slow wave (deep) sleep duration and sleep efficiency
- Increased light sleep duration
- Increased prevalence of napping
- Reduced overall sleep duration





# Sleep Disorders

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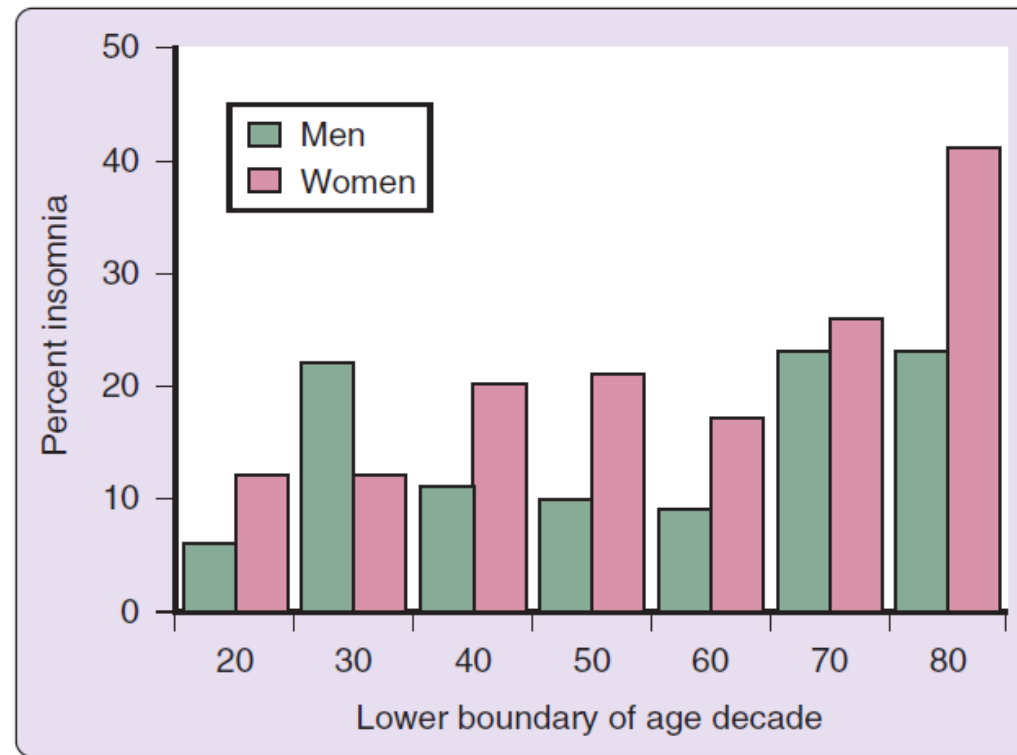
# Sleep Disorders in Older Adults

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- Aging associated with increased prevalence of:
  - Insomnia
  - Sleep-Related Breathing Disorders (e.g., Obstructive Sleep Apnea)
  - Circadian Rhythm Disorders (Advanced Type)
  - Sleep-Related Movement Disorders (e.g., Restless Legs Syndrome)

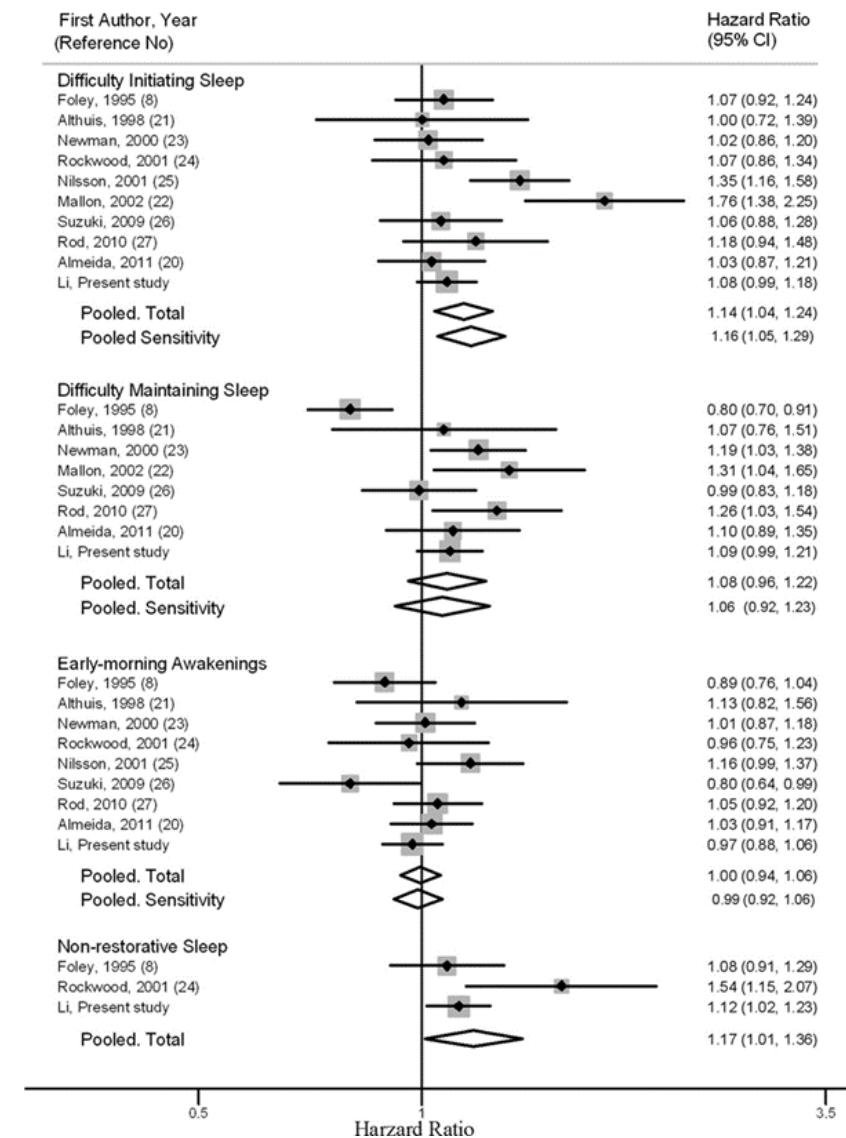
# Insomnia and Aging

- Insomnia is one of the most prevalent (15%) health problems in world.
- Insomnia complaints increase as we age.



# Insomnia, Health and Wellness

- Insomnia is associated with worse:
  - Medical and mental health
  - Work productivity
  - Accidents
  - Quality of life
  - Longevity



Lichstein, K.L., Taylor, D.J., McCrae, C.M., & Ruiter, M. (2017). Insomnia Epidemiology and Risk Factors. In M.H. Kryger, T. Roth, & W. Dement (Eds.), Principles and Practices of Sleep Medicine (6th Ed.). Philadelphia, PA: Elsevier/Saunders.

Li, Y., Zhang, X., Winkelmann, J. W., Redline, S., Hu, F. B., Stampfer, M., ... & Gao, X. (2014). Association between insomnia symptoms and mortality: a prospective study of US men. *Circulation*, 129(7), 737-746.

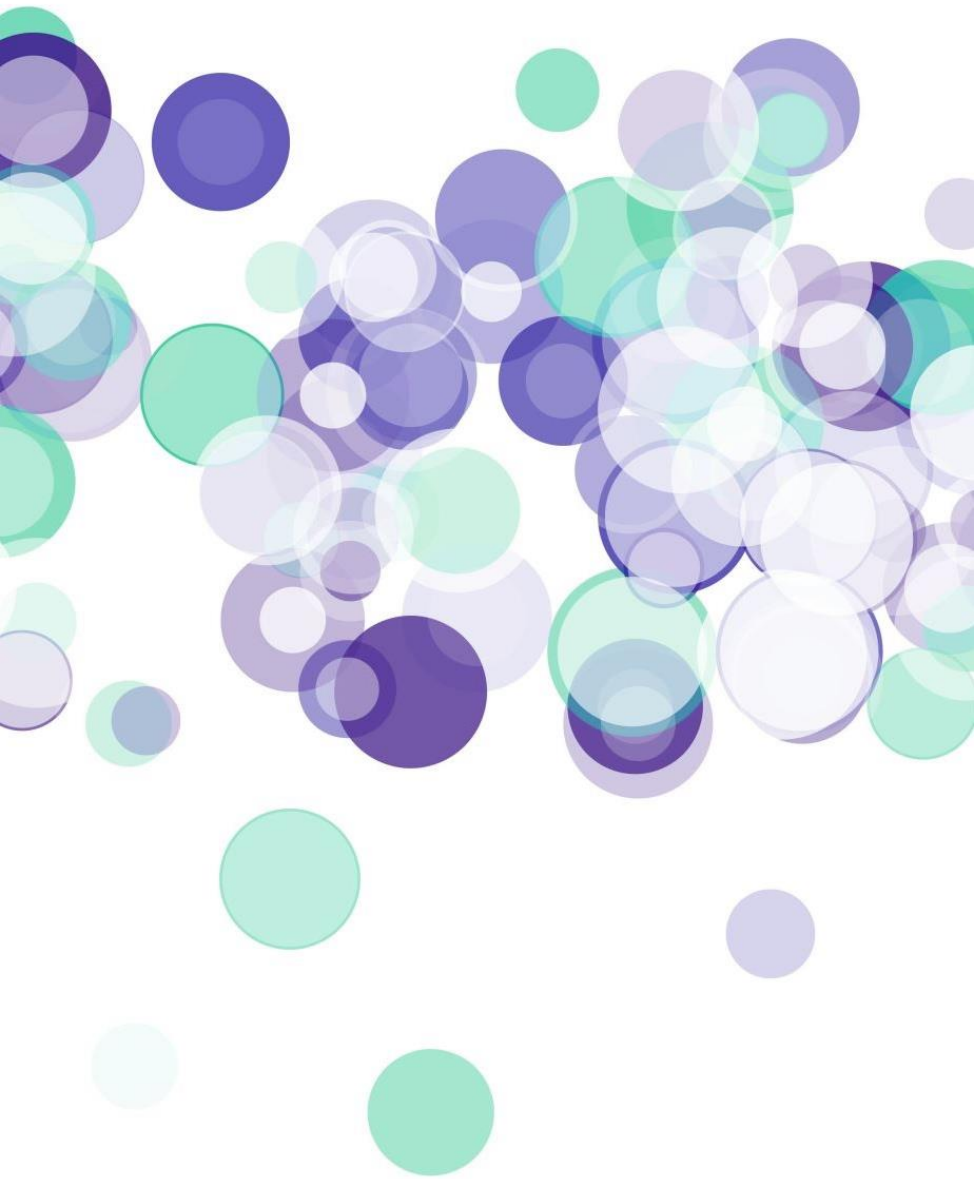
# Cognitive-Behavioral Therapy for Insomnia

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- First-line treatment for insomnia



- Preferred to medication-based treatments
- Effective for older adults



# Recommendations

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# General Recommendations

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Keep consistency in sleep schedule (with flexibility)

Use an unwinding routine to create a buffer zone between wake and sleep

Seek bright light and activity during waking hours

Keep naps brief and early

Be mindful of caffeine intake and timing of medications

Talk to a medical professional for concerns about sleep disorders

**Get regular daily light exposure and moderate to vigorous exercise.**

Increase light exposure during the day. Get 45-60 minutes of bright outdoor light over the course of the day. Combine with a walk for added benefit.



**Have consistent routines, including timing of meals.**

Consistent routines help regularize the sleep-wake cycle. Just don't eat within 2-3 hours of bedtime.



**Sleep Health Tips for Older Adults**



**Optimize environmental conditions [e.g., dark, quiet, cool (60-67° F), and clean air] that are under your control.**

A comfortable sleep environment is important to promote healthy sleep.



**Set a consistent bed and rise time.  
Allow for 7-8 hours of sleep.**

Sacrificing sleep for more time awake can have a negative impact on the quality of those waking hours.



# Questions?

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# Resources – General Sleep Advice

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National Institute of Aging Handout on Sleep and Older Adults

<https://order.nia.nih.gov/sites/default/files/2023-10/sleep-and-older-adults.pdf>

Sinai Geriatrics Handout on Managing Sleep in Older Adults

[https://sinaigeriatrics.ca/wp-content/uploads/2016/08/Managing-Sleep-in-Older-Adults-AODA\\_655-1.pdf](https://sinaigeriatrics.ca/wp-content/uploads/2016/08/Managing-Sleep-in-Older-Adults-AODA_655-1.pdf)

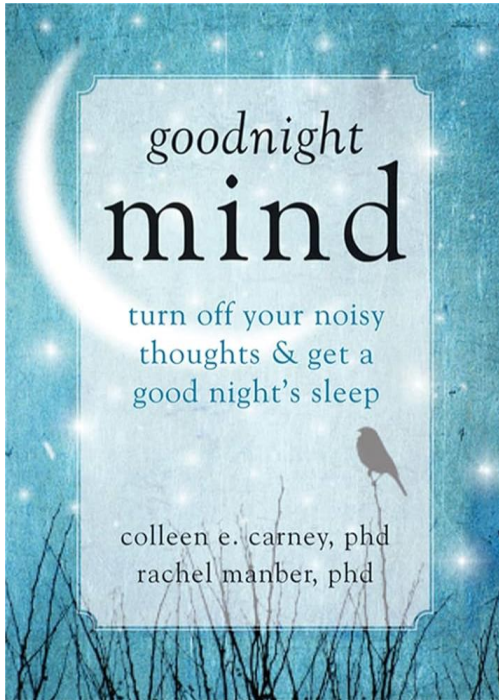
Consensus recommendations for promoting healthy sleep in older adults

Koffel, E., Ancoli-Israel, S., Zee, P., & Dzierzewski, J. M. (2023). Sleep health and aging: Recommendations for promoting healthy sleep among older adults: A National Sleep Foundation report. *Sleep Health*, 9(6), 821-824.

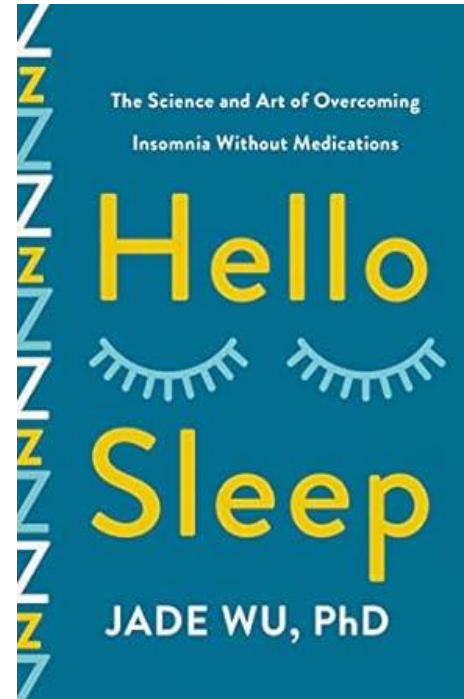
<https://doi.org/10.1016/j.sleh.2023.08.018>

# Resources – Insomnia Specific

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**Goodnight Mind**  
Carney & Manber



**Hello Sleep**  
Wu

Provider Directories for CBT-I

<https://cbti.directory/>

<https://www.behavioralsleep.org/index.php/united-states-sbsm-members>

Path to Better Sleep – free insomnia treatment program

<https://www.veterantraining.va.gov/sleep/index.asp>

Cleveland Clinic Go! To Sleep - \$40 insomnia treatment program

<https://shop.clevelandclinicwellness.com/products/go-to-sleep-online>

# Resources – RLS and Sleep Apnea

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Restless Legs Syndrome Foundation

<https://www.rls.org/>

Reggie White Foundation (Sleep Apnea Resources)

<https://www.reggiwhitefoundation.org/>

SleepApnea.org

<https://www.sleepapnea.org/>

# References

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