

# Sleep disorders in elderly individuals

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(Sleep and Event-Related Potentials)

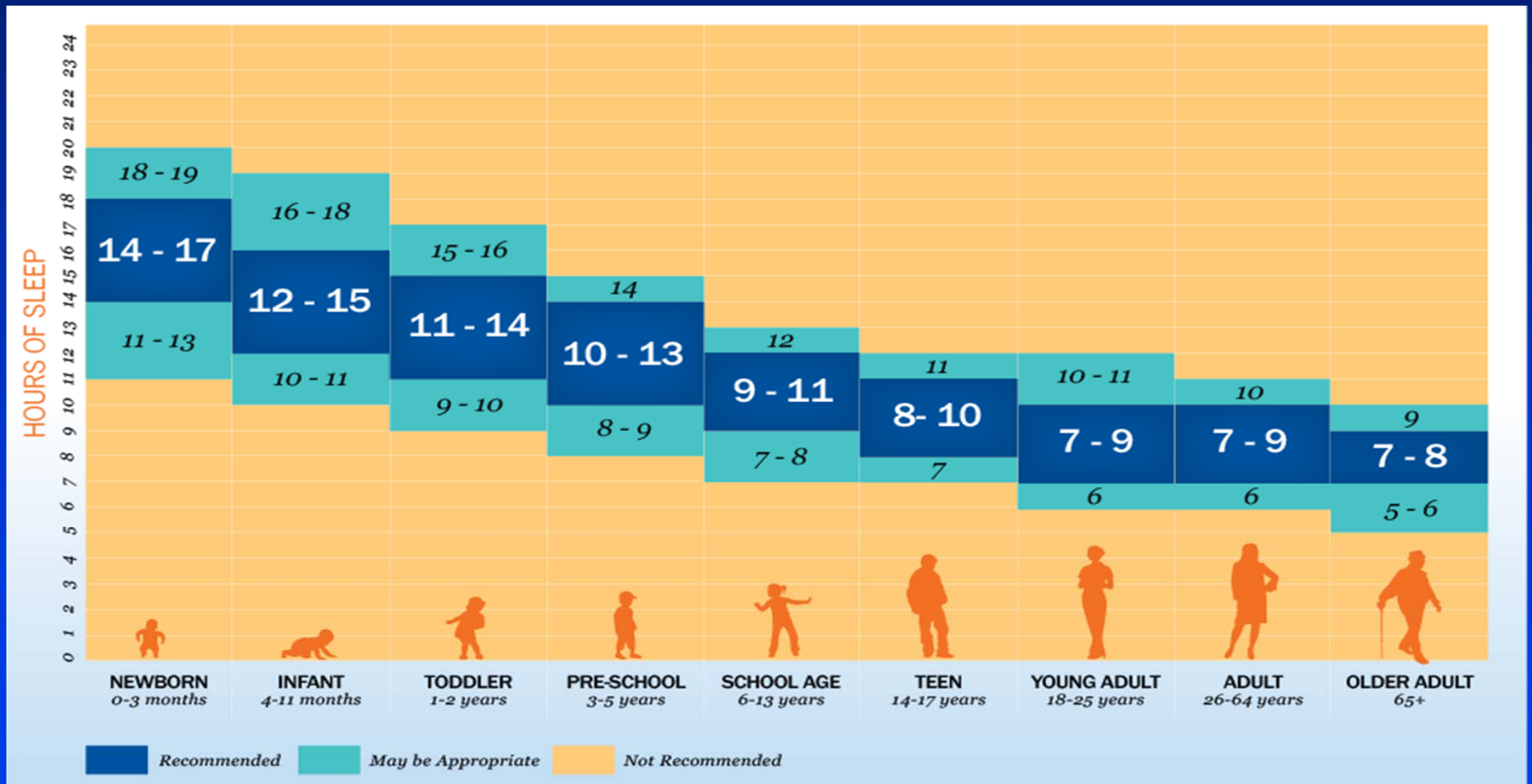


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# Main sleep disorders

- Insomnia
- Apnea (central and obstructive - OSA)
- REM Sleep Behavior Disorder

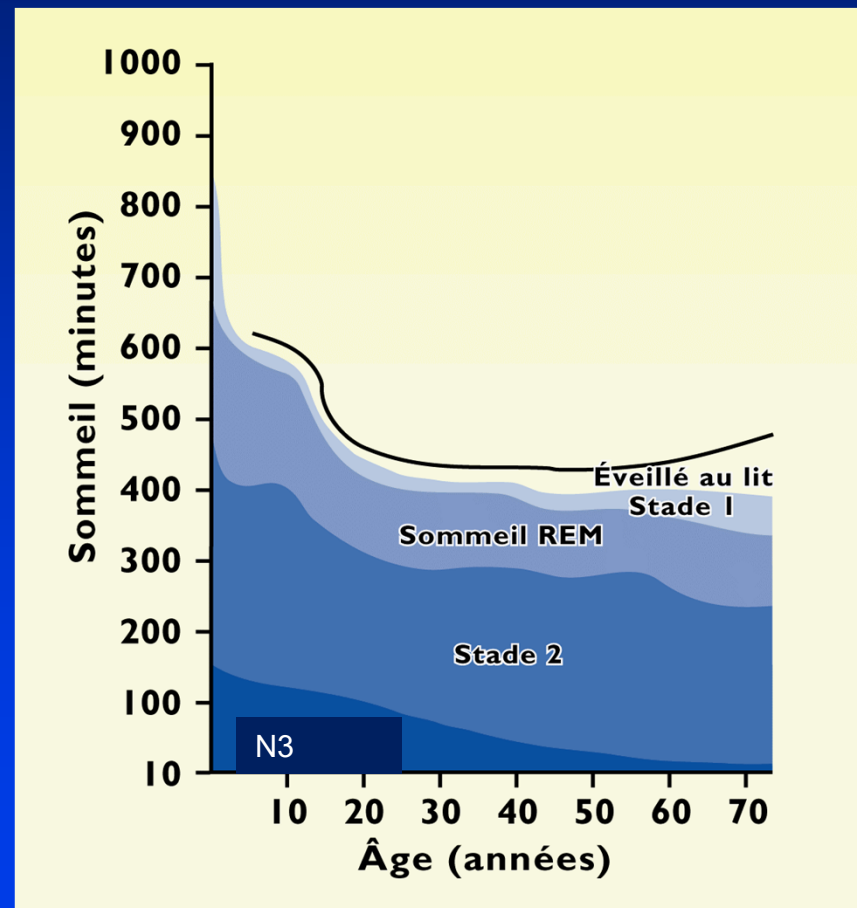
# Sleep 'needs' according to age



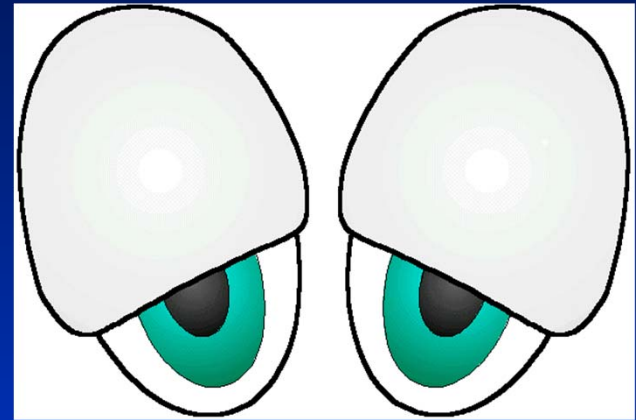
# So, with age...

Sleep duration decreases  
Shallow sleep (less deep and more fragmented)  
Early to bed

- ↗ Fall asleep
- ↗ Nocturnal awakenings
- ↗ Naps



# Consequences of sleep disorders



- Fatigue and sleepiness
- Psychological and medical comorbidity (ex. depression, anxiety, high blood pressure, diabetes, etc)
- Decreased quality of life



*Sleepwell*  **Sleep Diary**

**MY SLEEP PRESCRIPTION**  
 Bed Time: \_\_\_\_\_  
 Rise Time: \_\_\_\_\_

DAY OF THE WEEK						
DATE						
<b>Q1</b> What time did you go to bed?						
<b>Q2</b> What time did you try to go to sleep?						
<b>Q3</b> What time did you fall asleep?						
<b>Q4</b> How many times did you wake up during the night?						
<b>Q5</b> In total, how long did these awakenings last (minutes)?						
<b>Q6</b> What time was your final awakening?						
<b>Q7</b> What time did you get out of bed to start your day?						
<b>Q8</b> Note anything that interfered with your sleep						

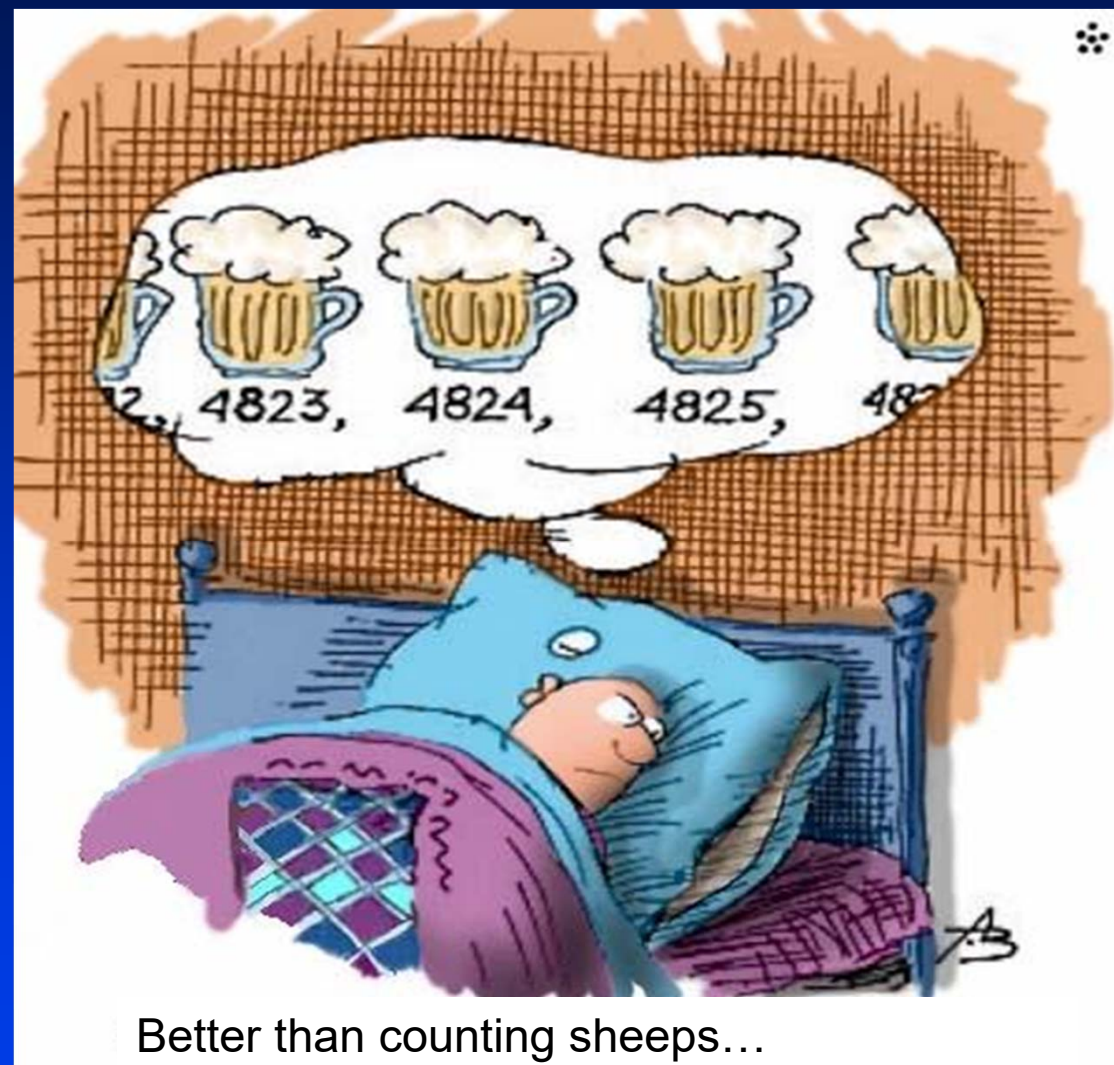
 **End of week calculations**  
 Easy calculations at [mysleepwell.ca/calculator](https://mysleepwell.ca/calculator)

My sleep duration (typical night): \_\_\_\_\_ My sleep efficiency (typical night): \_\_\_\_\_

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<https://mysleepwell.ca/cbti/sleep-diary/>

# Insomnia



Better than counting sheeps...

# Insomnia: What is it?

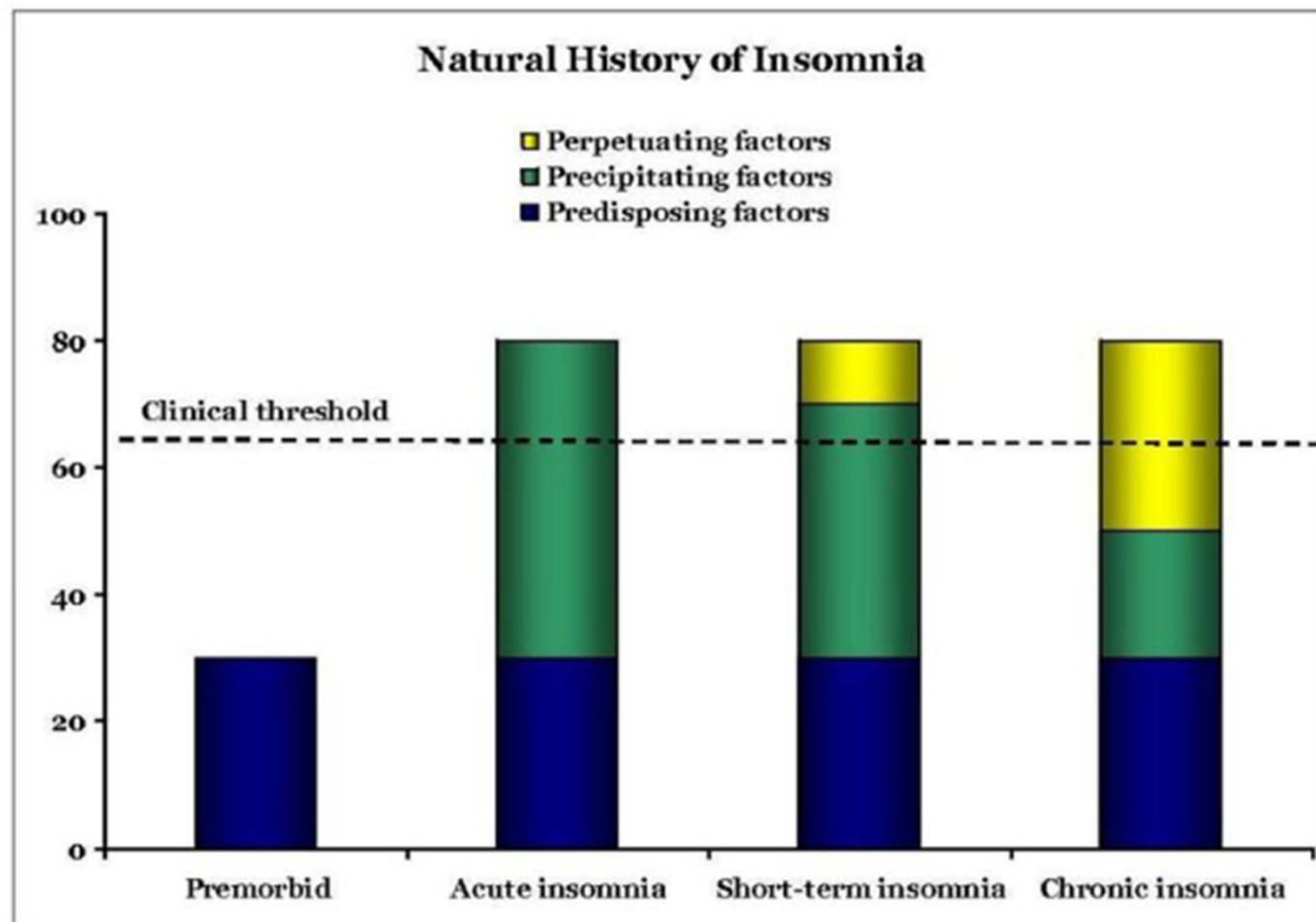
## Signs and Symptoms

- Most common sleep disorder (10-13% of population)
- More prevalent in women
- Difficulty falling asleep/staying asleep at least 3 nights a week for 3 months
- Distress





# Spielman's 3P Model



# Insomnia Disorder (DSM-5)

- Frequency > 3 nights/week (opportunity)
- Duration > 3 months
- Daily consequences and emotional distress
- Not resulting from a medical disorder, medication intake or substance abuse
- Not occurring exclusively concurrently with another sleep disorder or a psychopathology



# Sleep Diary

## MY SLEEP PRESCRIPTION

Bed Time: \_\_\_\_\_

Rise Time: \_\_\_\_\_

DAY OF THE WEEK							
DATE							
<b>Q1</b> What time did you go to bed?							
<b>Q2</b> What time did you try to go to sleep?							
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### End of week calculations

Easy calculations at [mysleepwell.ca/calculator](http://mysleepwell.ca/calculator)

My sleep duration (typical night): \_\_\_\_\_ My sleep efficiency (typical night): \_\_\_\_\_

Sleep efficiency

Sleep patterns

Causes...

How do we  
treat  
insomnia?

Treat the underlying cause:

- Cognitive Behavioural Therapy for Insomnia
- Mindfulness based stress reduction
- Medications (benzo- or non-benzodiazepines, AD, DORAs)



# Cognitive Behavioral Therapy for Insomnia

- 1<sup>st</sup> line treatment- 2-6 sessions
- Goal: replace thoughts/behaviors with strategies that optimize, regain confidence in and re-frame sleeping
  - Stimulus control/ conditioning
  - Sleep restriction
  - Sleep hygiene
  - Relaxation training
  - Cognitive distortions, dysfunctional beliefs/myths about sleep

## Did you or your partner report one of the following events?

- Difficulty breathing or pauses while breathing (gasping, choking, or holding breath at night)
- Shortness of breath
- Snoring (loud)
- Morning headache
- Chest pains
- Dry mouth
- Often changing posture or moving arms and/or legs

**APNEA**

# Apnea Disorder (Sleep-Disordered Breathing)

Characterised by a pause in breathing or an important decrease in breathing effort during sleep, associated with low blood oxygen

10 – 18% of the adult population  
Men over 50 y.o....

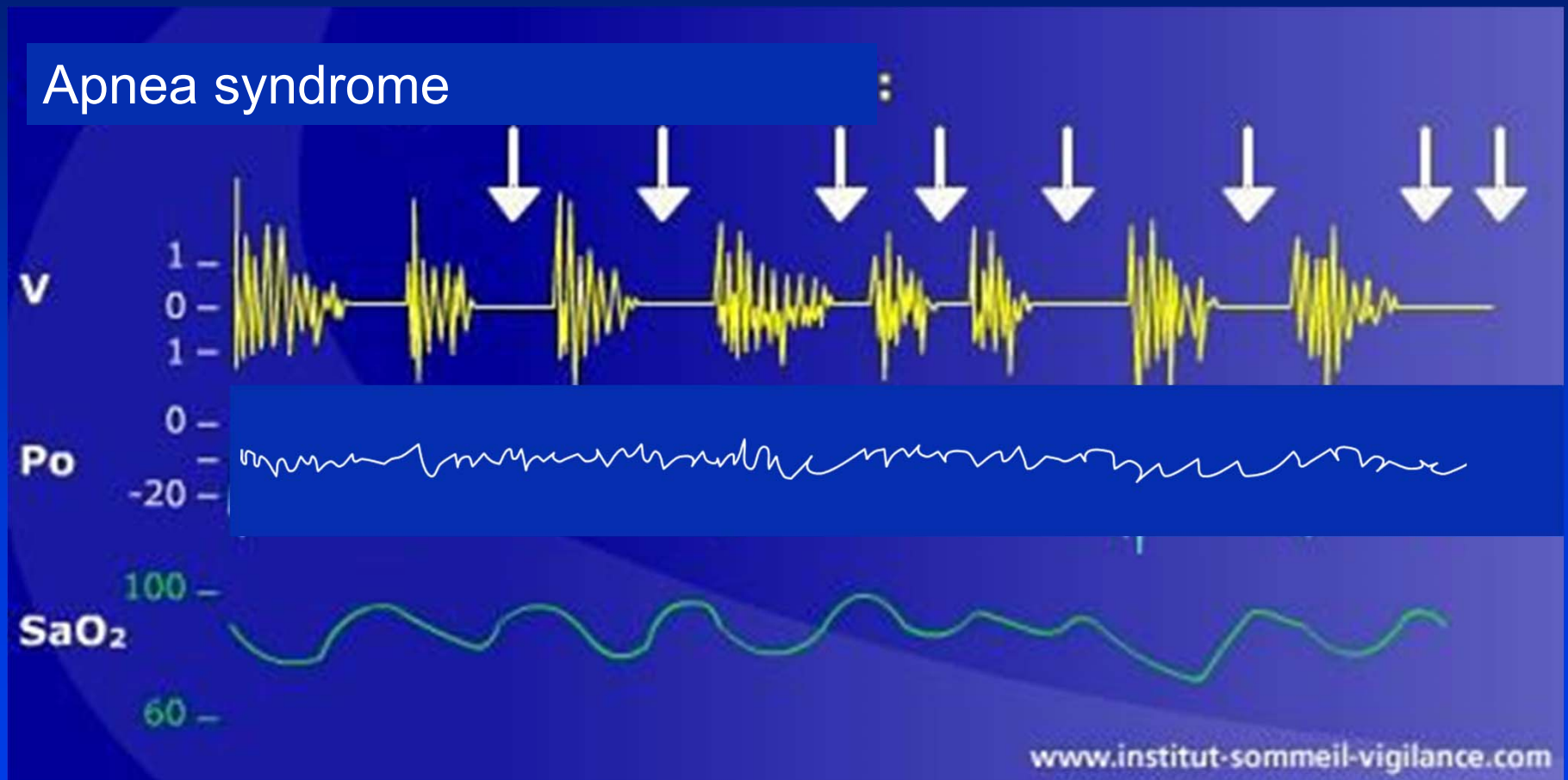
# Three types of apneas

- Central
- Obstructive
- Mix (combined Central and Obstructive)



# Central

The brain does not send the message to our lungs to breath



Breathing is interrupted (V), there is a drop in oxygen level with each interruption (SaO<sub>2</sub>). No effort to breath...

# Criteria for Central Apnea

- Individuals report :
  - Excessive daytime sleepiness or insomnia at night;
  - Being unaware of the problem;
  - Depressive symptoms and/or a possible lack of sex drive;
- Frequent episodes of breathing pauses (index per hour);
- Associated characteristics:
  - Gasping or choking
  - Body movements
  - Cyanosis

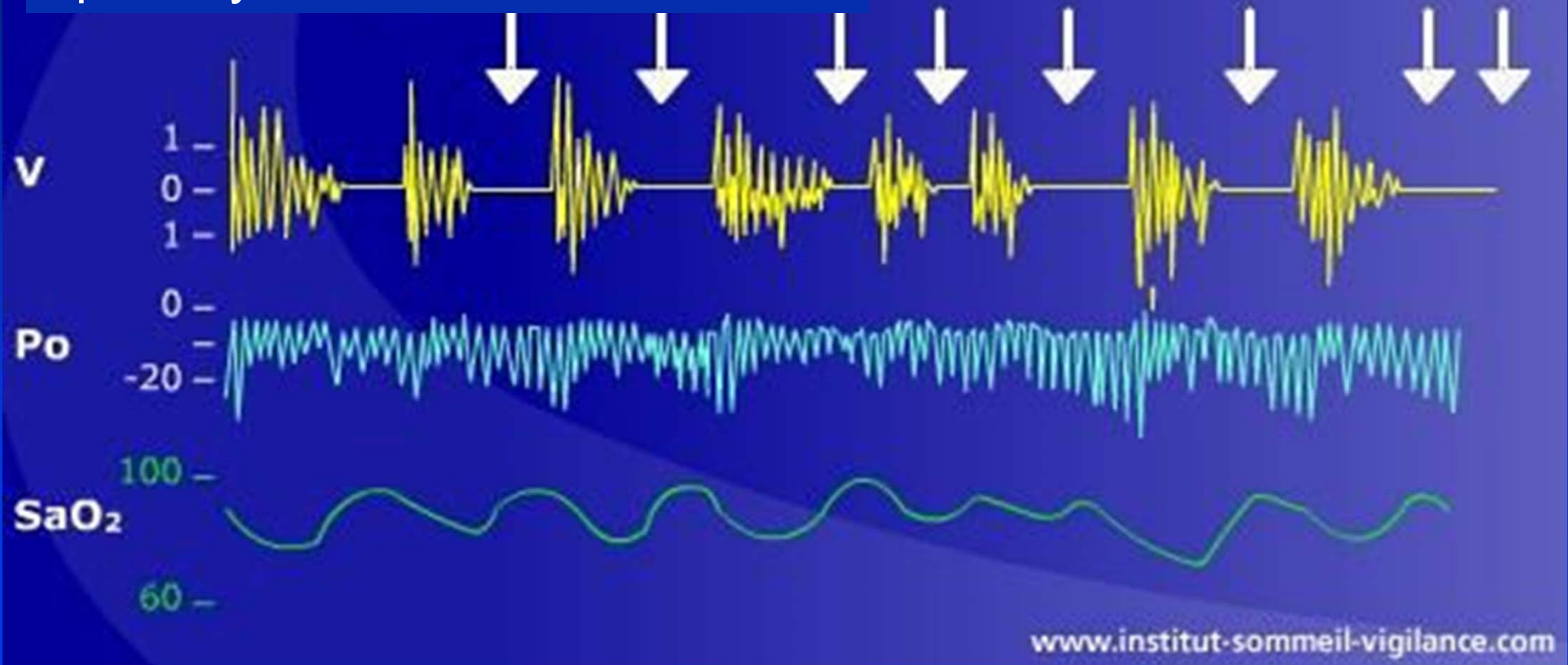


# Obstructive Apnea Syndrome (OSA)

The brain does send the message to the lungs to breathe, but they cannot because they are unable to do so (airway blockage)...

# Obstructive Apnea Syndrome (OSA)

Apnea syndrome



Breathing is interrupted (V), there is a drop in oxygen level with each interruption (SaO<sub>2</sub>). A lot of effort to breath...

# Diagnostic criteria for OSA

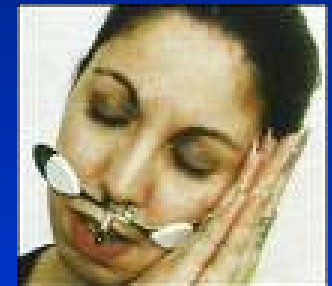
- Individuals report;
  - Excessive daytime sleepiness or insomnia;
  - Being unaware of the problem;
- Frequent episodes of obstructive breaths;
- Associated characteristics:
  - LOUD snoring
  - Morning headache
  - Dry mouth upon awakening



# Treatment

- Continuous Positive Air Pressure
- Surgeries (OSA - Tonsillectomy)
- Preventive measures:
  - Alcohol and/or sleep aid consumption
  - Avoiding adopting a dorsal position and sleep deprivation
  - Weight loss

Is your dental prosthesis well adjusted?



# And for your bed partner?



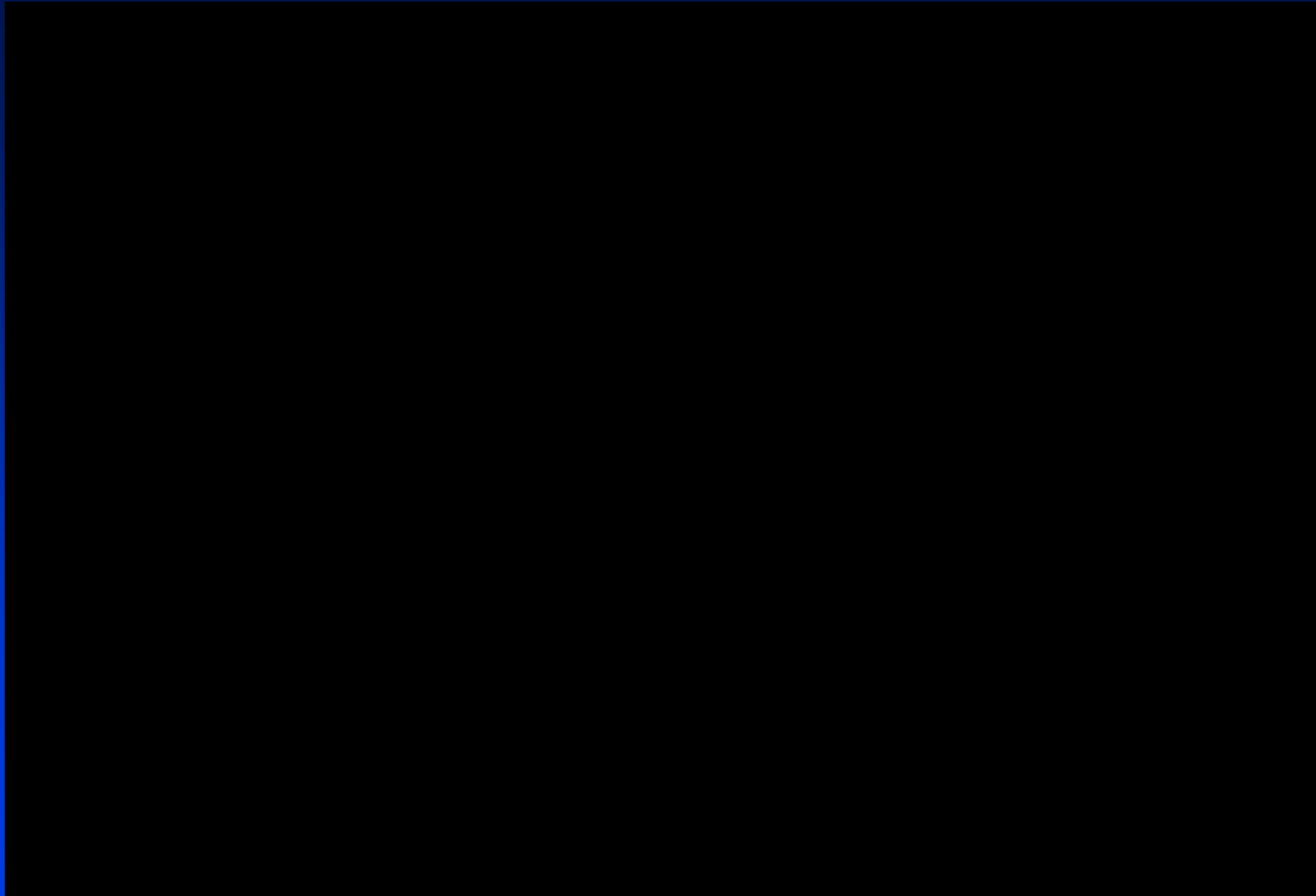
➤ Earplugs

➤ Separate bedrooms: it might have some advantages...



- **RBD** (REM Behavior Disorder) – acting out our dreams – loss of atonia:
  1. Especially in men older than 60 y.o. (87.5%); 2% of population
  2. Aggressive behaviors during the night but not during the day
  3. Often preceded by anxious dreams, violent nightmares
  4. Associated to Parkinson disease and Lewy Body Dementia (13%; within 14 years = 97%) and secondary narcolepsy (14%)
  5. 25% of individuals talk or have repetitive leg movements during sleep





# Treatment

- Melatonin
- Medication
  - Clonazepam (Rivotril)
  - Pramipexole (Mirapex)

Besides pills?



Safe environment



# Conclusion

- Many sleep disorders appear at different times in life
- Consequences are important
- Treatment is mandatory



Sleep tight everybody!