

Fixing Our Broken Sleep 2021

Strategies to dramatically improve your sleep

Rick Clerici C.Ht.

Certified Clinical Sleep Educator

Behavioral Sleep Therapist

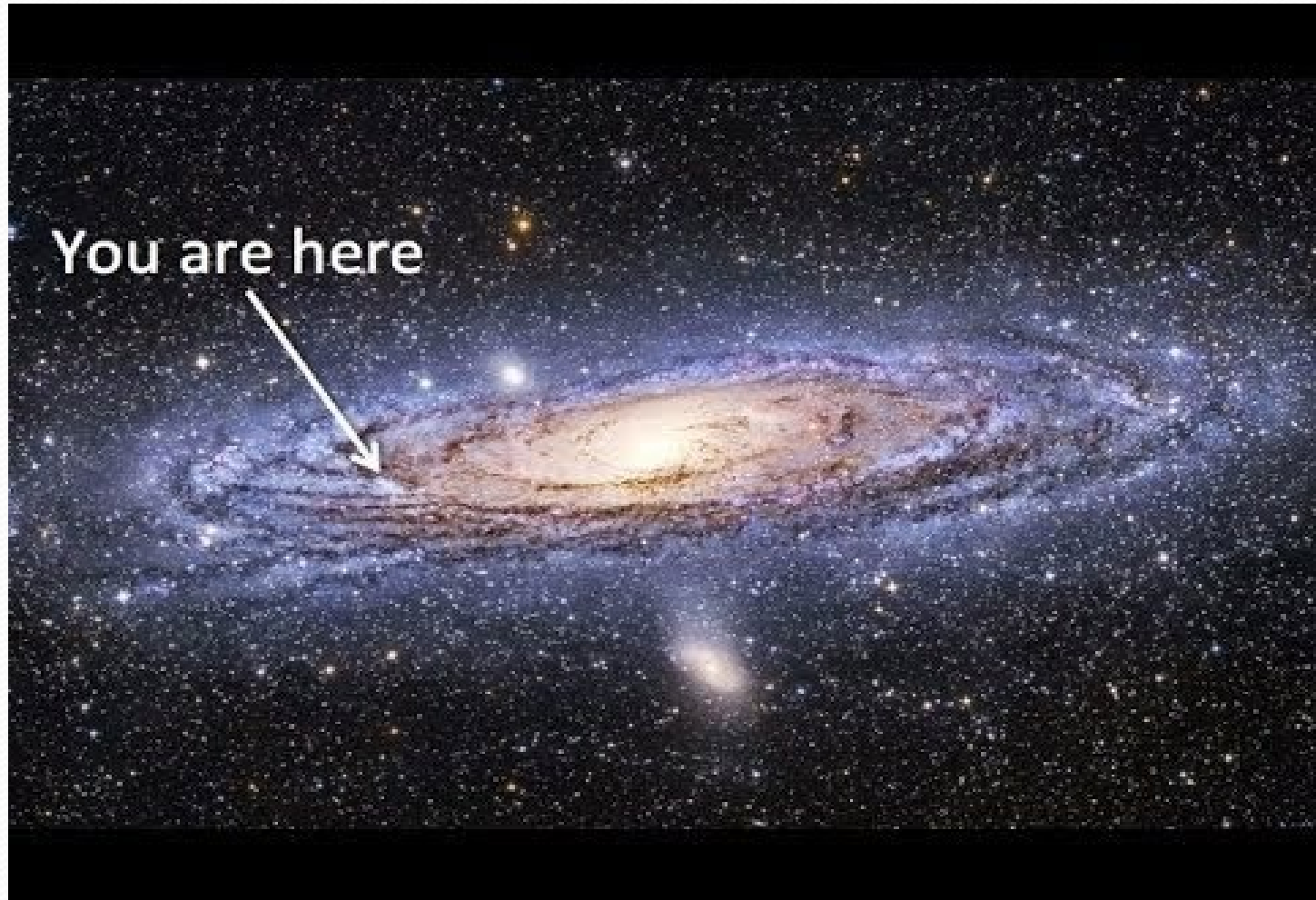
Sleep Energy

A division of

Clear Mind Systems

© Rick Clerici 2020

Studying Sleep is Like studying the Cosmos



Observing sleep



Portable sleep study



An in-lab sleep study



Studying your own sleep

- Over a two-week period, make some morning notes on your sleep experience
- Ask a neutral party about their observations of your sleep, if possible
- Use a tracking device for a week and see how the readouts coincide with your experience (ortho insomnia)
- Observe your natural sleep patterns
- Ask your doctor for a portable take home sleep study
- Have an in-laboratory overnight sleep study
- Find your natural style or rhythm

Surveys Tell Us About the Quality of Our Sleep: Now and Over Time

- 70% of Americans report sleep problems nearly every night
- Children from birth to the fifth grade are getting 1 1/2 to 2 hours per night less sleep than recommended
- 30% of American workers sleep 6 hours or less per night
- In 1961, 2% of people responded that they got 6 hours of sleep or less per night
- In 2011, 28% gave the same response
- In 2017, 30% gave that same response
- Only 17% of teenagers get the optimum amount of sleep

So... What Exactly Is Sleep?

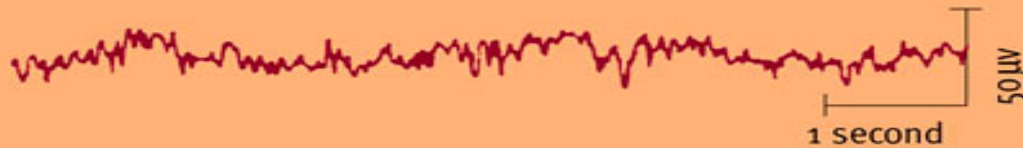
Sleep is the natural periodic suspension of consciousness necessary to regulate, repair and restore physical, emotional and cognitive health.



If Health Were a Wheel, Sleep Would Be the Hub

- Systems and functions like blood sugar, blood pressure, immune function and appetite are regulated during sleep
- Learning is encoded during sleep and moved into long term memory
- In slow wave sleep 80% of the necessary growth hormones are secreted to mend the wear and tear of daily life
- Heart activity drops by 10% during sleep
- The glymphatic system cleans neuro-toxins out of the brain during sleep

Measuring sleep



Awake

Low-voltage, high-frequency beta waves



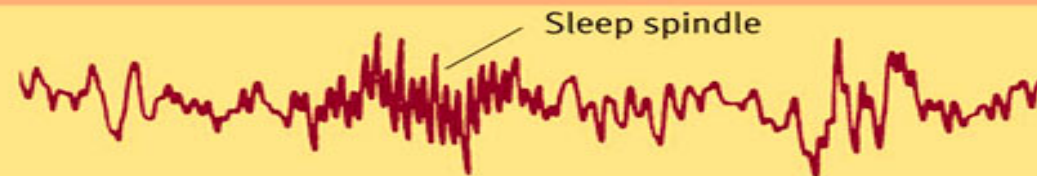
Drowsy

Alpha waves prominent



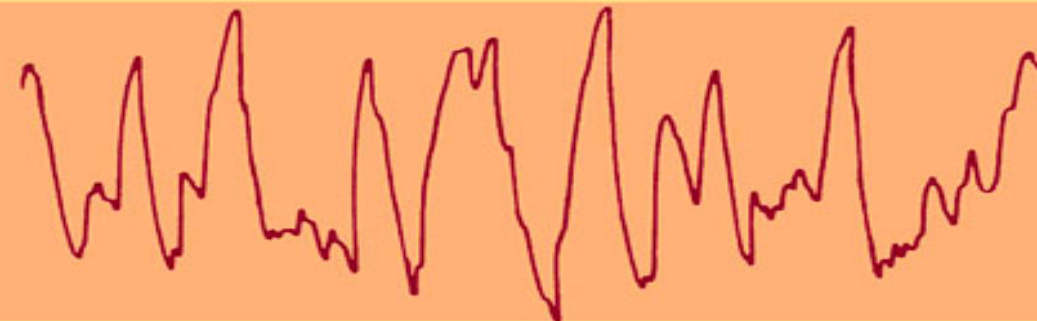
Stage 1 sleep

Theta waves prominent



Stage 2 sleep

Sleep spindles and mixed EEG activity



Slow-wave sleep

(stage 3 and stage 4 sleep)

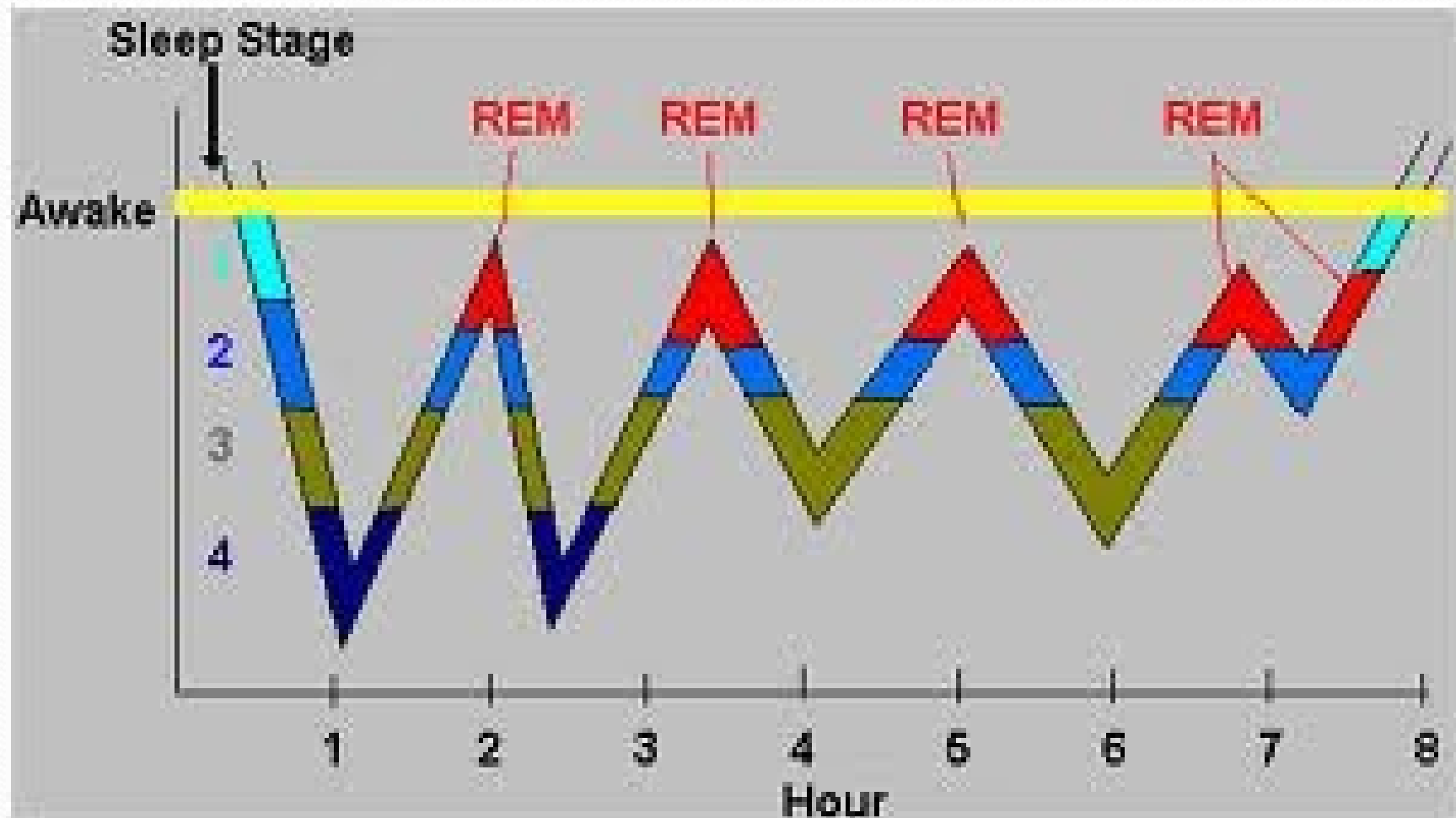
Progressively more delta waves (stage 4 shown)



REM sleep

Low-voltage, high-frequency waves

This is what a night's sleep looks like



Trends Associated With Insufficient Sleep

- There has been a huge increase in type 2 diabetes. Doubled in 18 states and risen by 50% in 32 states
- 1/3 children are overweight or obese
- 2/3 of American adults are overweight or obese
- In 1965, the average caloric intake was 2880 calories per day and in 2017 it was 3600
- In 1998, the president of the American Psychological Association estimated that depression has risen 10 to 20 times in the past 50 years (now 70)
- Anxiety disorder has risen 1200% since 1980
- There has been a significant rise in suicide and opioid addiction

The balance of light and dark



Before electricity Night-Time Illumination Was Simple and Minimal



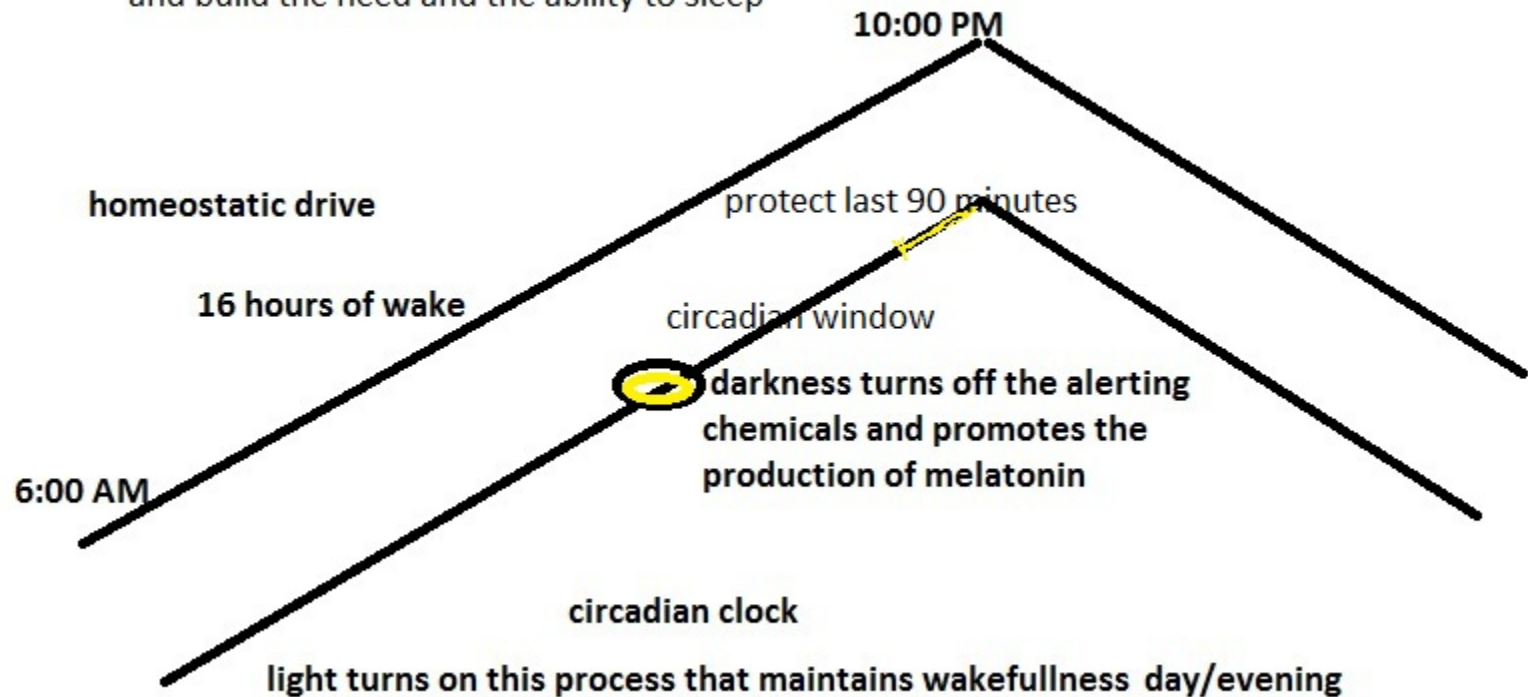
All life on Earth is regulated by a balance of exposure to light and dark. Light is associated with WAKE and dark is associated with SLEEP

**Since 1890, we have gained 4 to 6 hours of light per day
And lost 4 to 6 hours of darkness.**



Systems That Work Together to Maintain Wakefulness and Build Sleep

The homeostatic drive and the circadian clock work together to maintain wakefulness and build the need and the ability to sleep



The gifts of good sleep

Inspiration is vital

- Better overall health
- More vibrant immune system
- Reductions in anxiety and depression
- Cardiovascular health
- Reductions in body pain
- Better mood
- Better focus
- An increase in patience
- Increase in drive
- Better overall mental and physical performance

Sleep is the doorway into the great mystery



8 to get 8

- Make the bedroom a simple place for sleep and intimacy, free of work and technology.
- Keep as regular a sleep schedule as possible.
- Wake up in a dark room and then get as much light as possible.
- If you nap in the afternoon keep it to 20 or 30 minutes.
- Protect the last 60 to 90 minutes before sleep from light and screens.
- Try auditory entertainment like audible books, podcasts and soft music in that dark period before bed.
- Make the bedroom as dark as possible and use a sleep mask if you can't eliminate all light.
- Keep the room cool from 62 to 65 degrees.

Protect and Enjoy Your Sleep

Encourage Your Family in Their Sleep

Share Your Sleep Knowledge

With Those You Love

Ask for sleep coaching

Sleep Well

Questions about your own sleep

Describe your sleep problems



The following reference slides are for Q&A

Slides for use in answering specific sleep questions

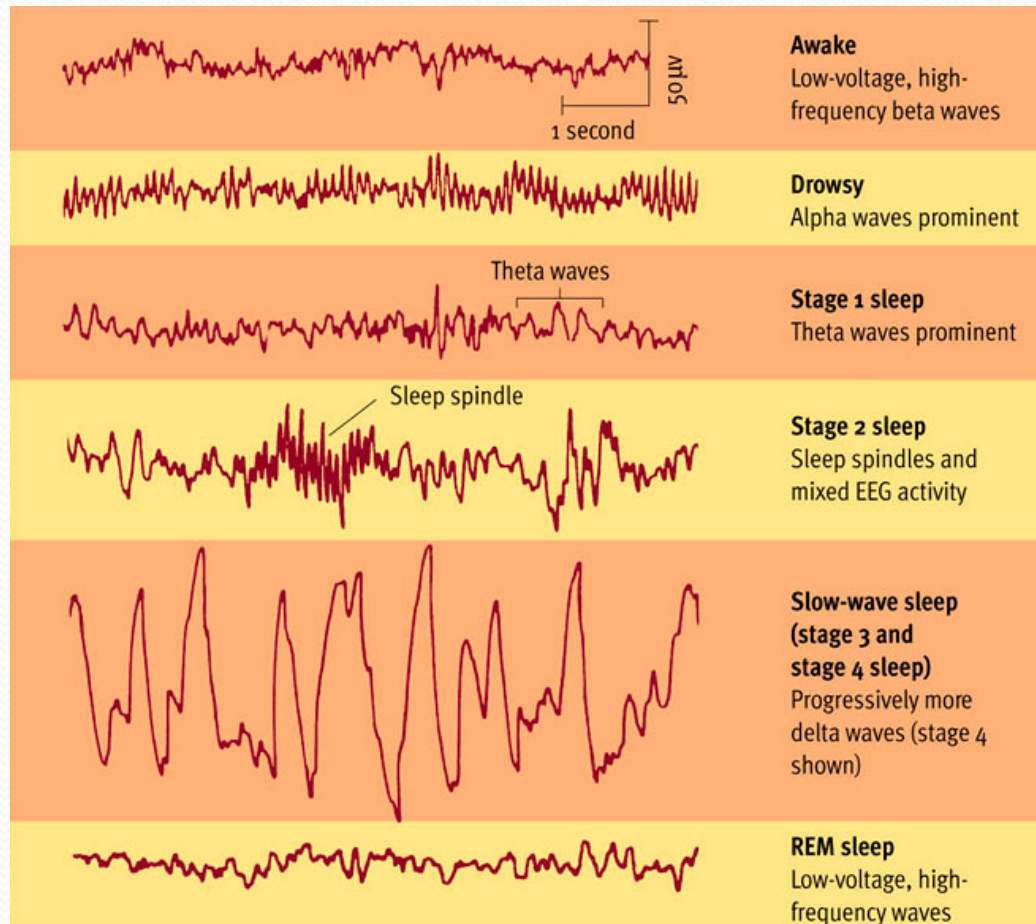
Night Owl Qualities

- Tends to get sleepy later in the night and sleeps late
- What time do I really feel sleepy enough to go to sleep?
- What time do I really want to get up in the morning?
- Tends to need about 8 hours of sleep (7 to 9)

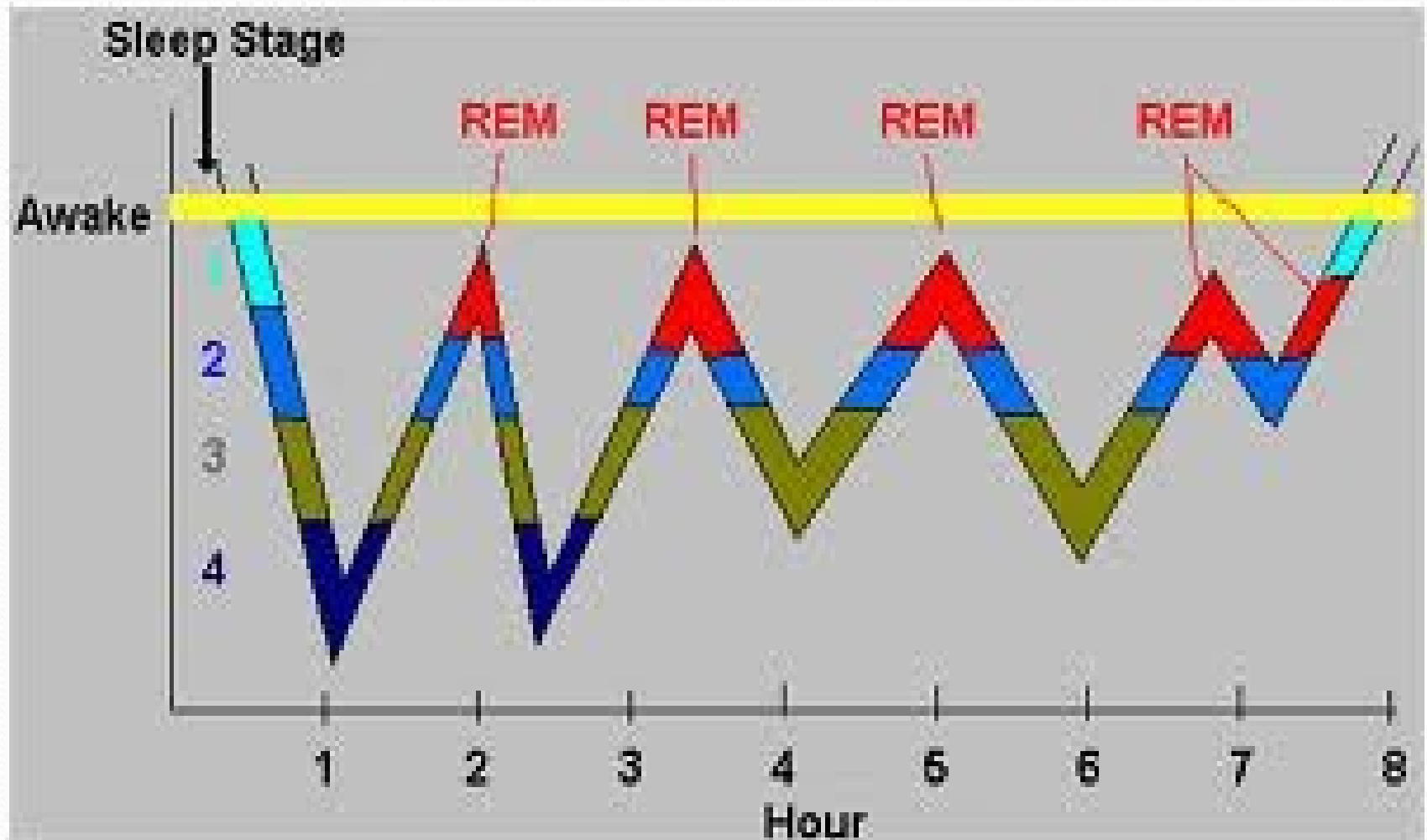
Beginning the voyage to better sleep

- Think of this as a journey of discovery and change
- Prepare to change some habits and become more open to change
- Be patient: It often takes 4 to 6 weeks to make a lasting difference
- Get sleep coaching and/or medical help

We Identify Sleep by Measuring Brain Waves



This Is What a Night's Sleep Looks Like



Simple Solutions to Excess Night-Time Light Exposure

- Protect the last 60 to 90 minutes before bed-time from bright light
- Move computer use to an earlier part of your evening
- Save simple chores and reading in low light for the end of the evening
- Keep lights as low as possible in the evening
- Keep the bedroom dark during sleep and in the morning
- Get some bright preferably natural light first thing in the morning

Garbage In – Garbage Out

- Moderate electronic media
- Avoid news and violent games and shows before bed
- If you are anxious at night or suffer from nightmares avoid watching violent crime dramas and horror movies.

Wanted for Killing Sleep

