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Sleep and Dreams

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- ▶ Why do we sleep?
- ▶ Stages of sleep
- ▶ How much sleep do we need?
- ▶ Sleep disorders
- ▶ Dreams



Consciousness

- ▶ State of awareness
 - Feelings
 - Sensations
 - Ideas
 - Perceptions
- ▶ Altered state of consciousness = different levels of awareness
- ▶ Brain is never completely “off”
- ▶ EEG (electroencephlogram) helps us study sleep

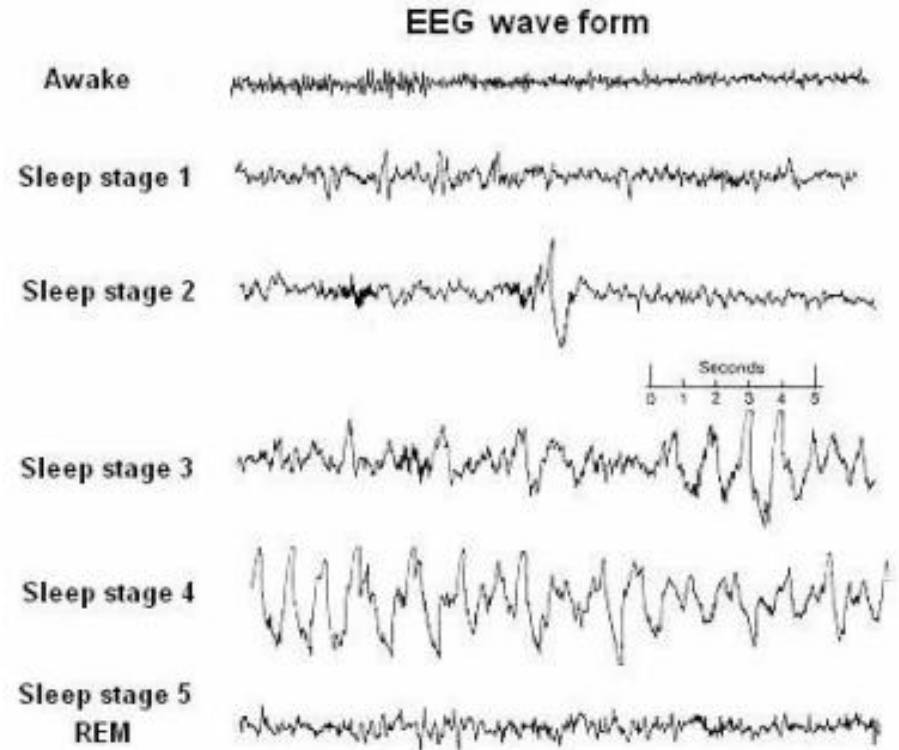
Why Do We Sleep?

- ▶ Restoration?
- ▶ Hibernation?
- ▶ Adaptive?
- ▶ Clear our LTM?
- ▶ To dream?

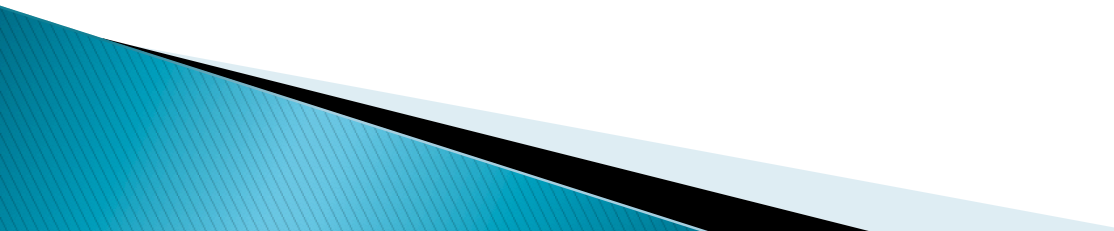


Stages of Sleep

- ▶ Stage 1
 - Brain waves irregular
 - Report “drifting”
- ▶ Stage 2
 - Slightly larger brain waves
- ▶ Stage 3
 - Even larger brain waves
- ▶ Stage 4
 - Deepest sleep, difficult to waken



REM Sleep

- ▶ Pulse rate and breathing irregular
 - ▶ Increased adrenalin and sex hormones in blood
 - ▶ Arms, legs paralyzed
 - ▶ Rapid eye movement
 - ▶ Dreaming
 - ▶ First round of REM 15 min, last round 45 min
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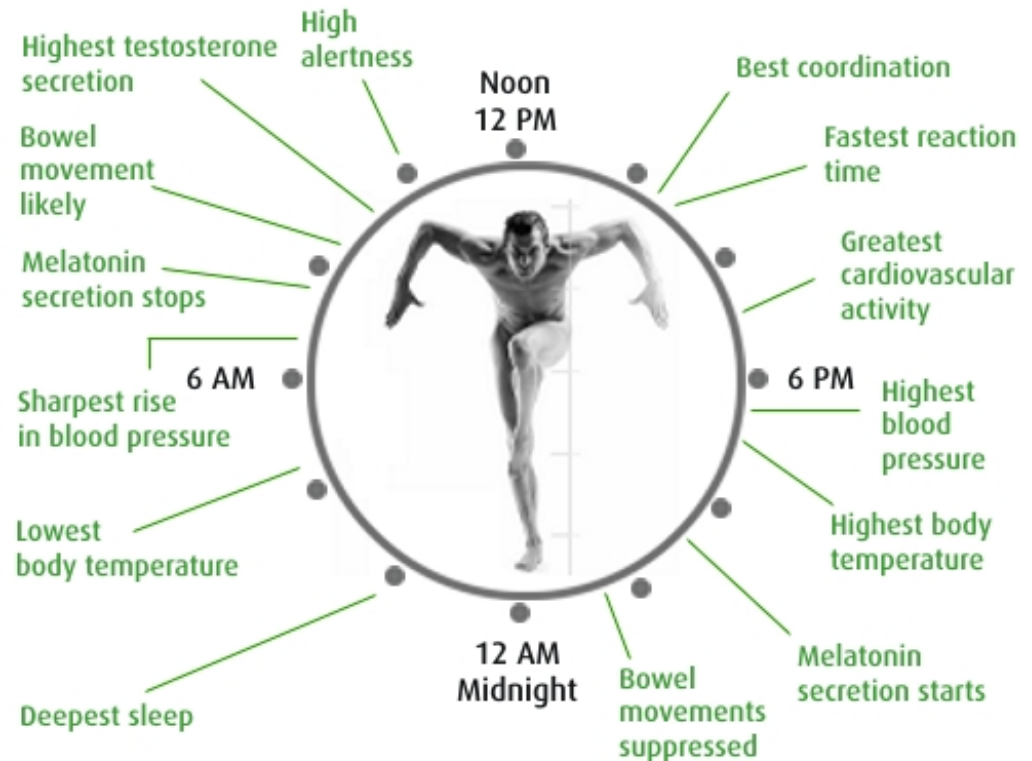
How Much Sleep?

- ▶ Babies 16 hours
- ▶ Teens 9–12 hours
- ▶ Adults 6–9 hours
- ▶ Seniors 4–6 hours



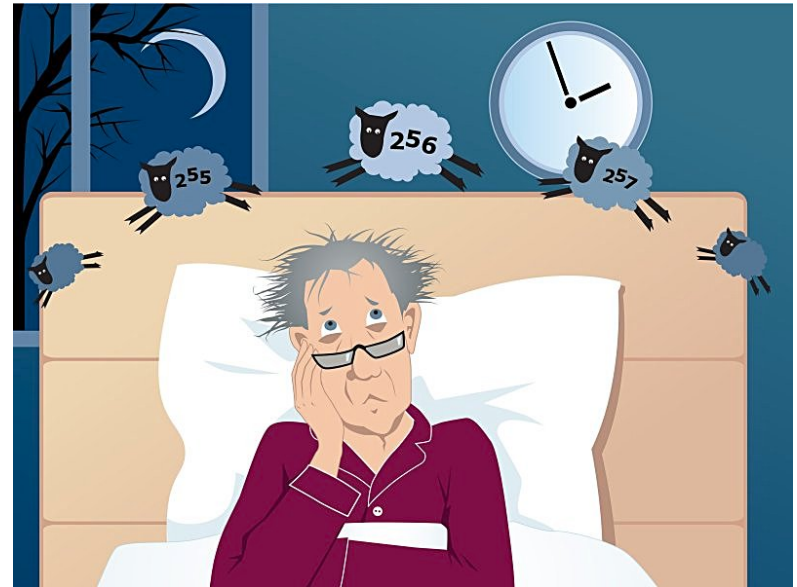
Circadian Rhythms

- ▶ Biological clock
- ▶ Governs:
 - Blood pressure
 - Heart rate
 - Appetite
 - Hormone secretion
 - Sleep cycles
- ▶ 24–25 hour cycle



Sleep Disorders

- ▶ Insomnia
 - Chronic, 2 hrs sleep/night
- ▶ Sleep Apnea
 - Choking
- ▶ Narcolepsy
- ▶ Nightmares
 - REM sleep
- ▶ Night Terrors
 - Stage 4 sleep
- ▶ Sleepwalking and Sleep talking
 - Usually in stage 4, can be REM



Dreams

- ▶ Content
 - Usually benign
 - Unusual dreams are remembered
- ▶ Interpretation
 - Cultural

