Sleep

- Circadian Rhythm – 24 hour cycle, our “internal clock”
Sleep Cycle

- Use an EEG machine to measure stages of sleep.

Click dude for alpha Waves.

Click to see an awake brain.
Awake, relaxed

Stage 1 sleep

Stage 2 sleep

Stage 3 sleep

Stage 4 sleep

REM sleep

Alpha waves

Spindle (burst of activity)

Delta waves

Eye movement phase
Stage 1

- half awake and half asleep.
- Only lasts a few minutes
- sometimes you feel like you're falling
Stage 2

- Begin to show sleep **spindles...short bursts of rapid brain waves.**
Stages 3 and 4

• Slow wave sleep.
• If awoken you will be very groggy.
• Vital for restoring body’s growth hormones and good overall health.
REM Sleep

- Rapid Eye Movement
- aka paradoxical sleep.
- Brain is very active.
- Dreams usually occur in REM.
- Body is paralyzed.
Sleep Disorders
Insomnia

- Persistent problems falling asleep and/or staying asleep
- Effects 10% of the population
Narcolepsy

- Suffer from sleeplessness and may fall asleep at unpredictable or inappropriate times.
- Directly into REM sleep
- Less than .001% of population.
Sleep Apnea

• A person stops breathing during their sleep.
• Very common, especially in males.
• Can be fatal.
Sleep Paralysis
http://ed.ted.com/lessons/the-terrors-of-sleep-paralysis-ami-angelowicz

• a feeling of being conscious but unable to move.
• occurs when passing between stages of wakefulness and sleep.
• unable to move or speak for a few seconds up to a few minutes.
• may also feel pressure or a sense of choking.
Night Terrors

- Night time screaming and no idea why.
- Not a nightmare.
- Occur in stage 4
- Most common in children between ages 2-8.
Somnambulism

• Sleep Walking
• Most often occurs during the first few hours of sleeping and in stage 4 (deep sleep).