

Journal

- How many hours of sleep per night do you usually get? Explain how many hours of sleep you think you SHOULD be getting?

Consciousness and Sleep

Consciousness

- Our awareness of ourselves and our environment



Some occur spontaneously

Daydreaming

Drowsiness

Dreaming

Some are physiologically induced

Hallucinations

Orgasm

Food or oxygen starvation

Some are psychologically induced

Sensory deprivation

Hypnosis

Meditation

Bodily Rhythms



- Biological Rhythms: periodic physiological fluctuations
 - Grizzly bears hibernating
 - Sleep length
 - Female menstrual cycle
 - 24-hour day cycle (alertness)
 - 90-minute sleep cycle

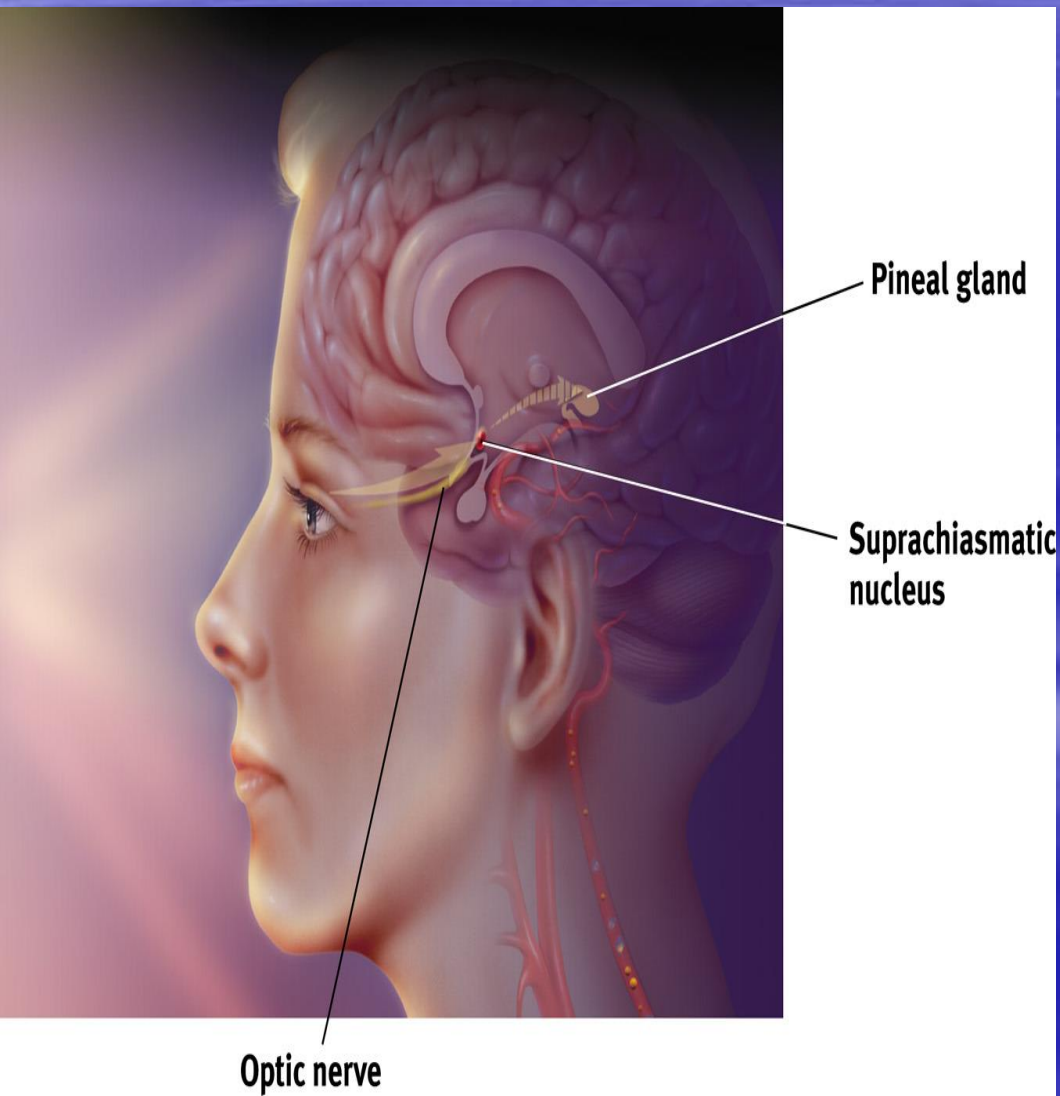
Did you know? In 1989, Michael Doucette was named America's Safest Driving Teen. In 1990, while driving home from college, he fell asleep at the wheel and collided with an oncoming car, killing both himself and the other driver.

Bodily Rhythms

- **Circadian Rhythms**: biological clock that regulates bodily rhythms on a 24-hour cycle
 - Influenced by LIGHT → causes our pineal gland to increase or decrease production of melatonin
 - With age, we shift from night owls to morning birds
 - **What would happen if a person was put into a cave for a long period of time without any light?**
 - The body works on a natural 25-hour clock



How it works - Technically



- Light striking the retina causes the **suprachiasmatic nucleus** (a tiny neural center in the hypothalamus) to alter the production of biologically active substances, such as melatonin production by the pineal gland.

Sleep Facts

- 1/3 of lifetime (25 years) spent sleeping; 6 of those 25 years dreaming
- Need for sleep varies; 20 hours for infants, 9.25 hours for teenagers
- 100,000 dreams over a typical lifetime
- **Benefits of adequate sleep:** better mood, more efficient work, healthier
- **Sleep debt drawbacks:** accidents increase, performance decrease, immune system damaged, creativity decreased, retention decrease



“Early to bed, early to rise, makes a man healthy, wealthy and wise.” – Ben Franklin, 1757

Sleep Theories

- **Protection**: sleep hides us from harm; animals with the least ability to hide sleep less (elephants-4 hrs/day, cats-14 hrs/day, chipmunks & bats-20 hrs/day))



Sleep Theories

- **Recuperation**: the brain recovers from stress and exhaustion; brain tissue restored and repaired



Sleep Theories

- **Making Memories**: sleep restores and rebuilds our fading memories of the day's experience



Sleep Theories

- **Creativity**: sleep boosts thinking and learning
 - **problems are often solved after a night's sleep

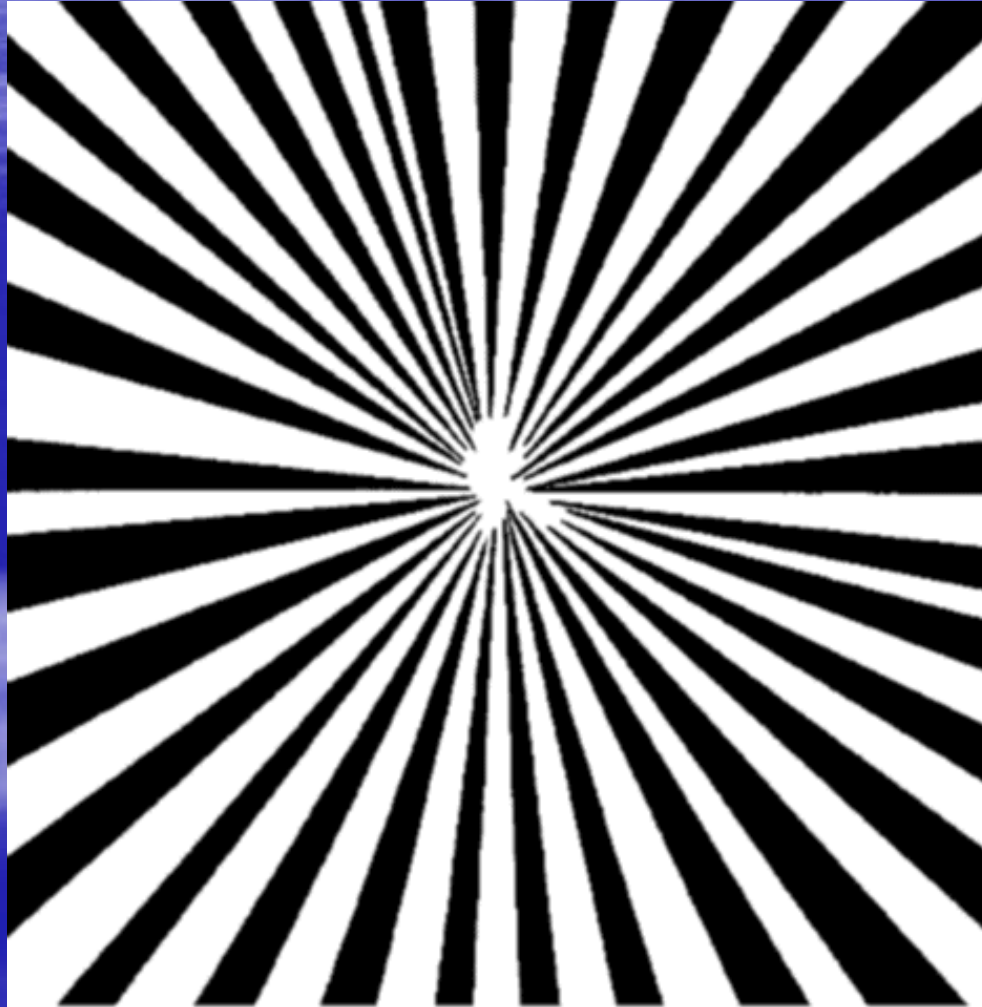


Sleep Theories

- **Growth Process**: pituitary gland releases growth hormones during sleep



Near-Death Experiences



- an altered state of consciousness reported after a close brush with death
- often similar to drug-induced hallucinations
- May be caused by oxygen deprivation affecting the visual cortex