Sleep

Mike Wu
Nov. 8, 2013
Do dolphins sleep?

Conscious breathers

Not fish
Dolphins sleeps 8 hours per day!
How do dolphins sleep?

- Rest on the surface of the water
- Rest half of the brain at a time
- The awake half keep them swimming, surfacing
- Can wake up instantly

Unihemispheric sleep
Unihemisphere Sleep

- Sea creatures
- Flying creatures
- Reptiles
Who don’t?

Us!

Terrestrial mammals
Predation risk

- Live at home
  - locked door
  - + safe community
  - = close both eyes!

- First night in a hotel room

- Lower quality sleep
Sleep is dangerous.
How do we sleep?
Are you getting enough sleep?
• If you need an alarm clock to get you out of bed in the morning
• If you are taking a long time to get up
• If you need lots of stimulants
• If you’re grumpy
• If you’re irritable

Chances are you are sleep-deprived
A good night of sleep

- Not just the amount
- Quality!
  - e.g. right timing according to your circadian rhythms
  - Daylight saving shift...
- More tips later
What if we don’t get enough sleep?
• Weight gain

• Sleep loss

→ release of the hormone ghrelin, “the hunger hormone”

→ the brain says, “I need carbohydrates!”

→ seek out sugars
Growth and Rejuvenation

- Heightened anabolic state
- Immune, nervous, skeletal, and muscular systems
- Flushing out harmful toxins in the brain.
Memory, Learning, Creativity

- Consolidation of memory
  - Stage 3: deep/slow-wave sleep
- Sleep helps you remember by forgetting
- Insightful behaviour and flexible reasoning
- Creative insomnia?
If you get good sleep,

- Increases your concentration, attention, decision-making, creativity, social skills, health
- Reduces your mood changes, your stress, your levels of anger, your impulsivity
Make your bedroom a haven for sleep

- Make it as dark as you
- Make it slightly cool
- Reduce your amount of light exposure at least half an hour before you go to bed
- Turn off phones, computers, all of those things that excite the brain
- Try not to drink caffeine too late in the day, ideally not after lunch
Seek out morning light
The purposes and mechanisms of sleep are only partially clear and the subject of substantial ongoing research.

–Wikipedia
References

- Images courtesy of wengenninwonderland.com