

SBI4U Viewing sheet: Sleepless in America

KEY

1. What major incidents do experts believe sleep deprivation played a role in?

Major train derailments, accidents on highways, ...
the Exxon Valdez oil spill, Three Mile Island nuclear meltdown

2. What is our **circadian rhythm**?

a cycle mediated by the pineal gland and melatonin
that regulates our sleep/wake cycle; roughly corresponds
to our 24 h day.

3. According to the documentary, how have the sleeping habits of North Americans changed over the past fifty years?

We're sleeping ≥ 2 hrs. less than previous generations

40% of adults are sleep deprived, 70% of adolescents

4. How does short or disrupted sleep directly impact our health?

Affects immune system - immunity/resistance drop

Can quickly lead to pre-diabetes symptoms

5. How does **REM** sleep differ from Non-REM sleep?

↓
dreaming

↘ deepest sleep,
reviewing memories of the day
clearance of beta amyloids

6. What is one of the reasons that adolescents are chronically sleep deprived?

school start times conflicting with circadian rhythms.

7. What does the documentary present as arguments for a later start to the school day?

Later starts → ↑ test scores, stronger immunity = better attendance

↓ rates of depression/anxiety 70% fewer car crashes

8. What is **sleep apnea**? What risks does it come with? How is it treated?

A cessation of breathing caused by collapsing upper airways, small a.w.
(due to genetics + obesity) Risks of stroke, heart attack, death.

Treated w/ CPAP machines

9. How are the amygdala and frontal cortex related to sleep deprivation?

↓
emotions

↓
emotional control/restraint

} the two stop communicating,
you lose your filter/brakes = become
irritable, emotionally quick to react

10. What do researchers find is the connection between sleep and mental health?

... They can be triggered by being underslept.

11. What is the single most common sleep disorder among adults?

Insomnia

12. Do people sleeping together sleep better or worse than sleeping apart?

* yet people surveyed almost invariably say they prefer sleeping w/ their partner

due to constant motion/interruptions

13. What is insomnia? What are its most common treatments? What risks accompany this?

an inability to get to sleep or staying asleep

sedatives (can create dependencies/addictions)

hypnosis

14. What are some ways your body and brain benefit from sleep?

- better learning + memory
- "rebalances" emotions
- boosts immunity

- may stimulate creativity
- "refreshes" our C-V. system
(as pressure drops, blood filtered)
- regulates cell metabolism

15. What are some ways you can improve your sleep?

- cool temp. bedroom
- Routine: keep a regular bedtime
- a dark, quiet room helps
- avoid late caffeine, big meals, alcohol
- can't sleep? Get out of bed + do something
(boring tasks are especially helpful)