

AMAZING BREAKTHROUGH!!

Live Longer!
creative!

Enhance Memory!

Be More

Be More Attractive!
Cravings!

Stay Slim and Lower Food

Lowers the Risk of Diabetes!

Protection from Cancer!
Dementia!

Protection from

Wards off Colds and Flu!!

Lowers the Risk of Heart Attack and Stroke!

Be Happier, Less Depressed, Less Anxious!

Interested?

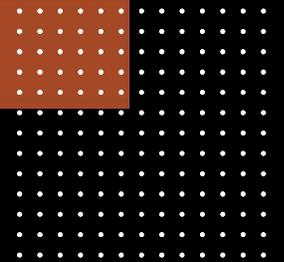
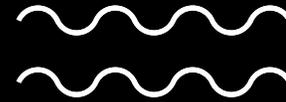
SLEE



What is Sleep?

Melatonin – Circadian Rhythm

Adenosine – Sleep Pressure



**Figure 1: Typical Twenty-Four-Hour Circadian Rhythm
(Core Body Temperature)**

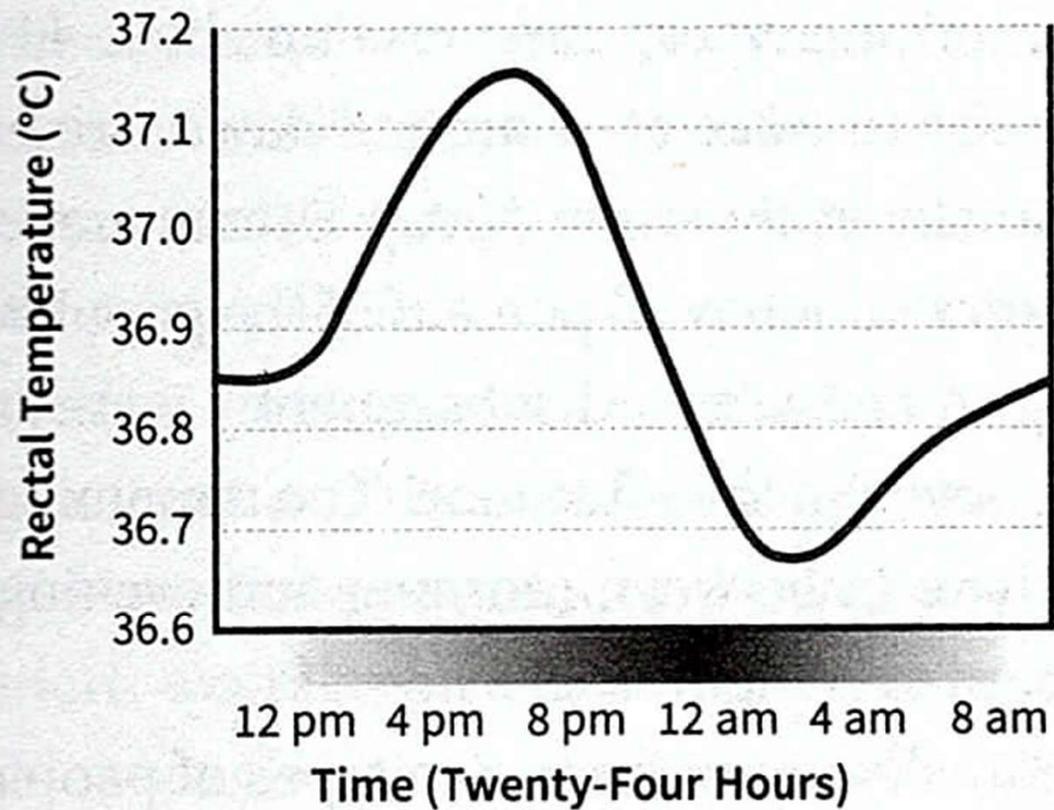


Figure 2: The Cycle of Melatonin

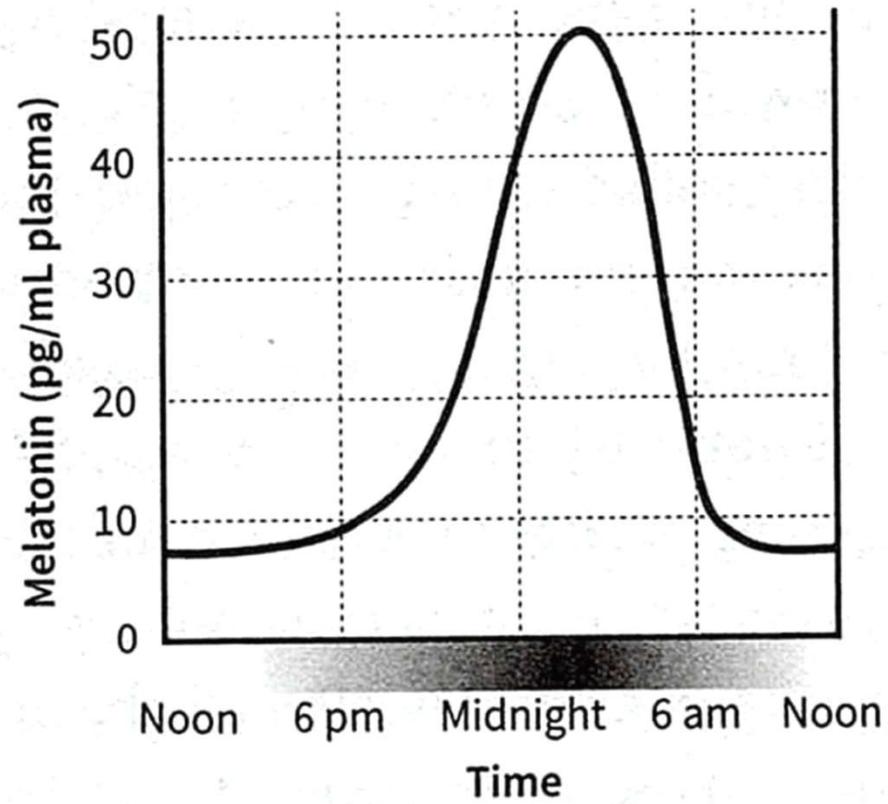
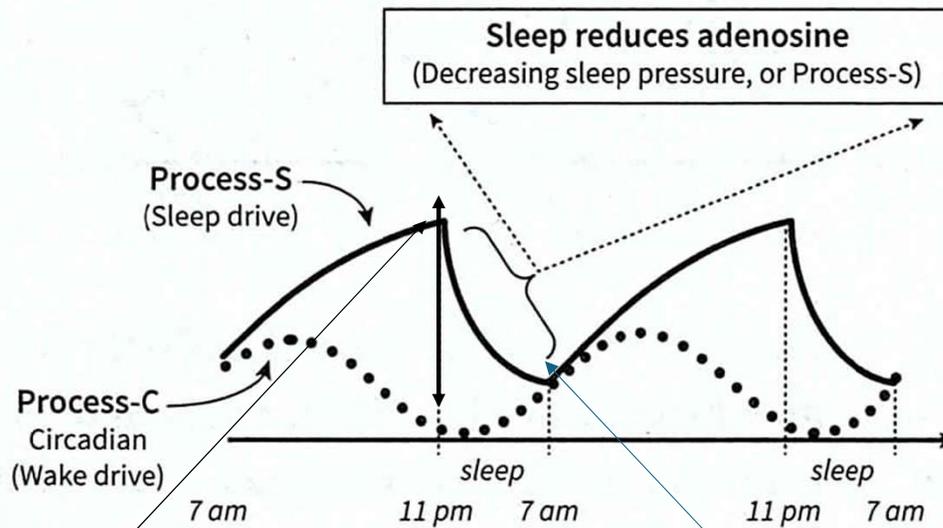


Figure 4: The Two Factors Regulating Sleep and Wakefulness



Greatest urge to sleep
(Greatest distance between Process-C and Process-S)

Strong urge to be awake
(Small distance between Process-C and Process-S)

Figure 7: The Ebb and Flow of Sleep Deprivation

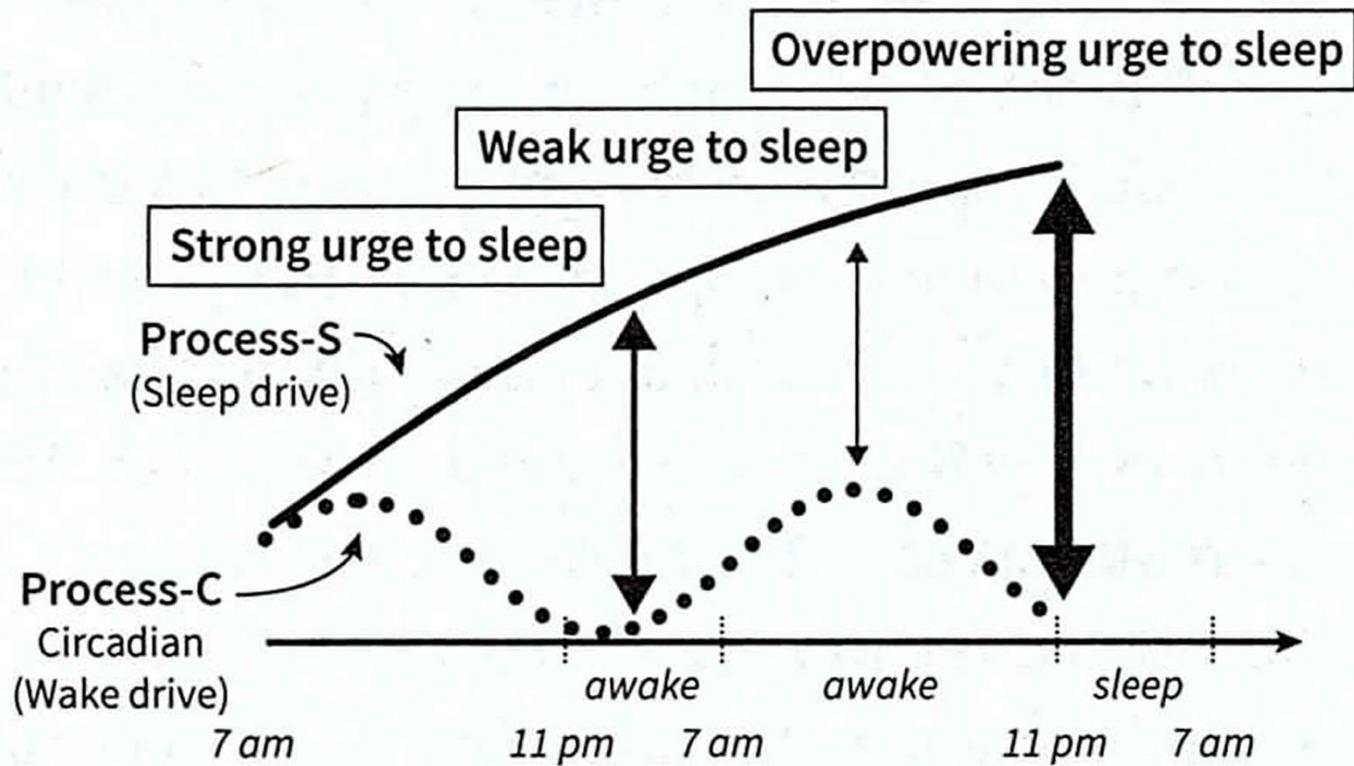


Figure 3: Effects of Various Drugs on Spider Web Building

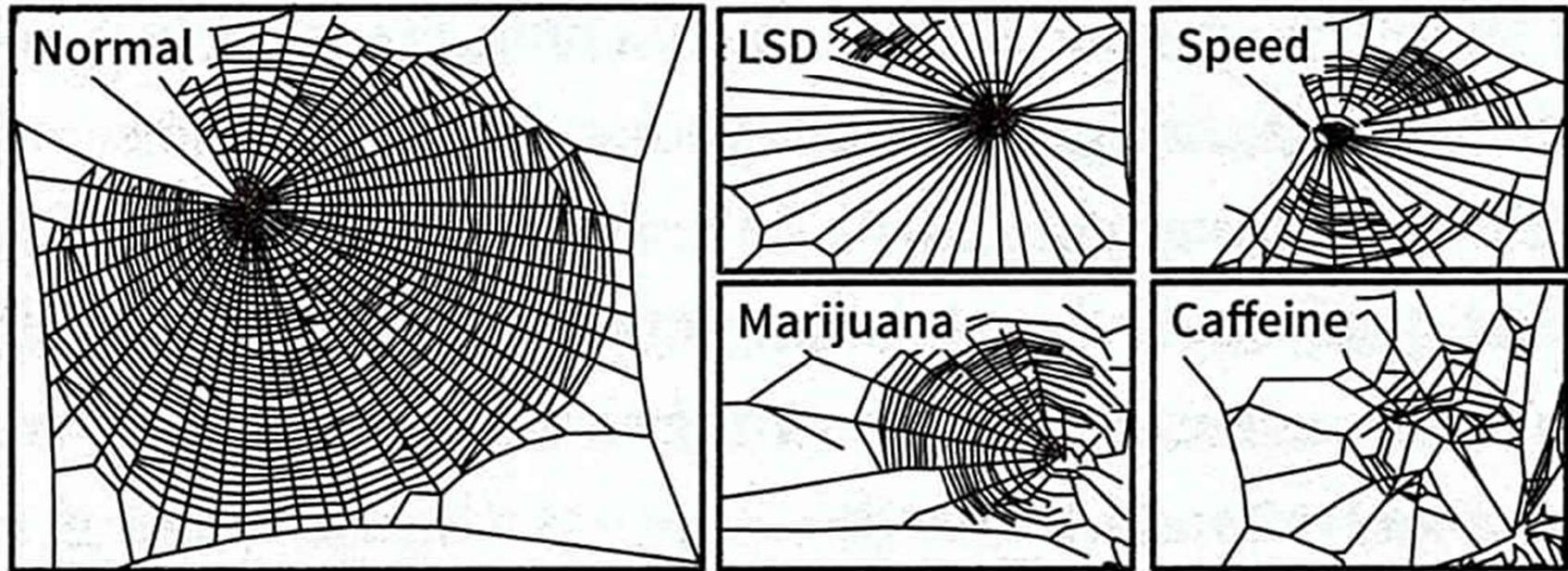
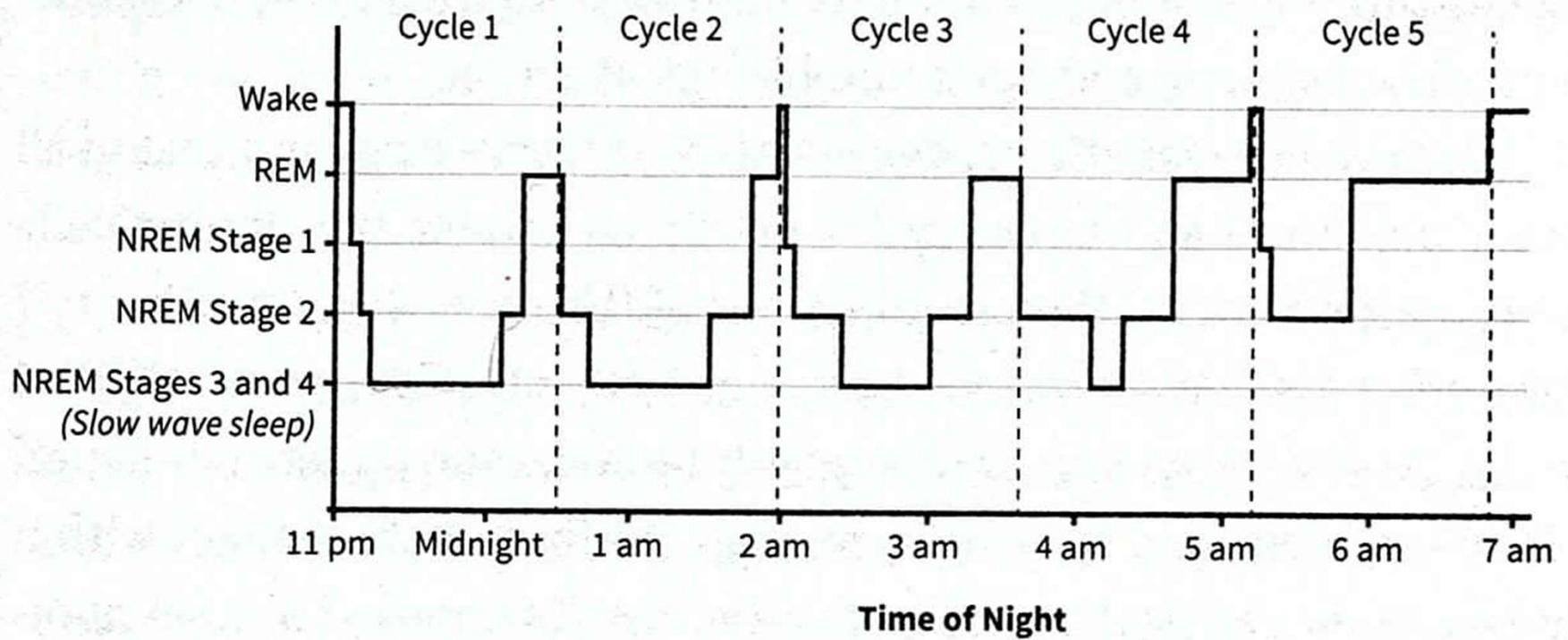
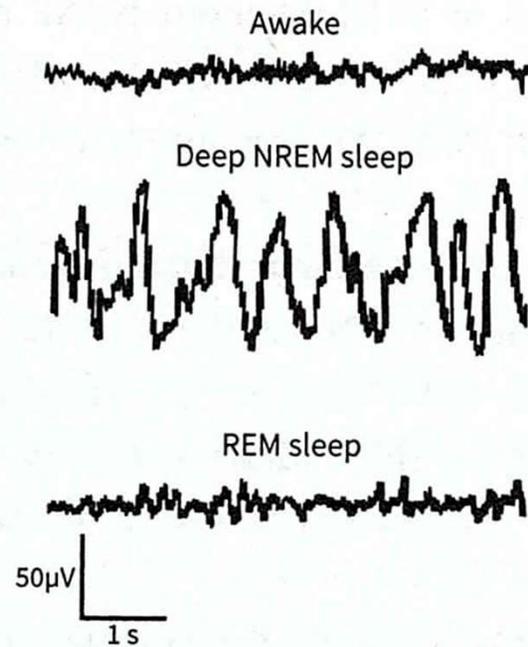


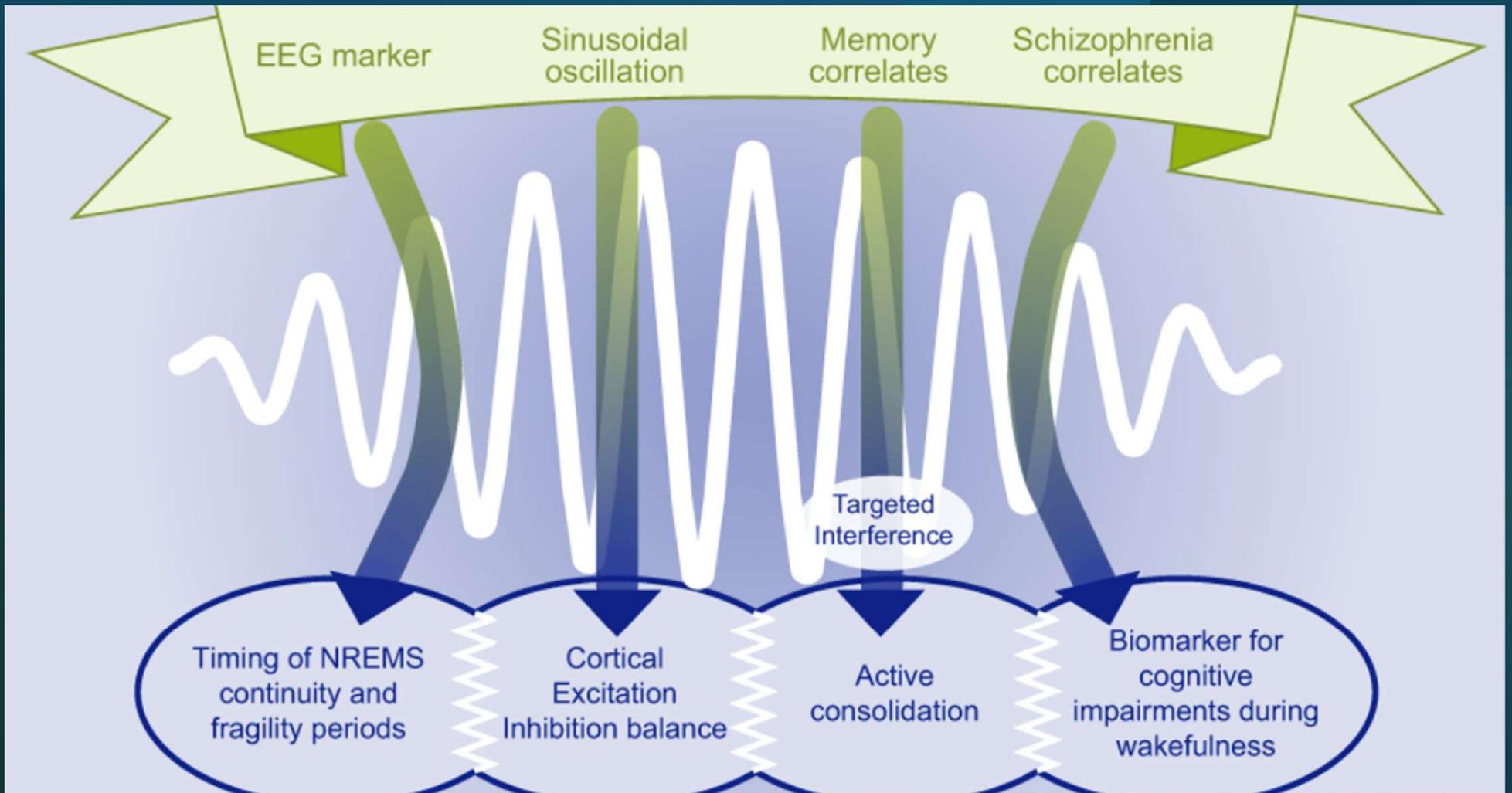
Figure 8: The Architecture of Sleep



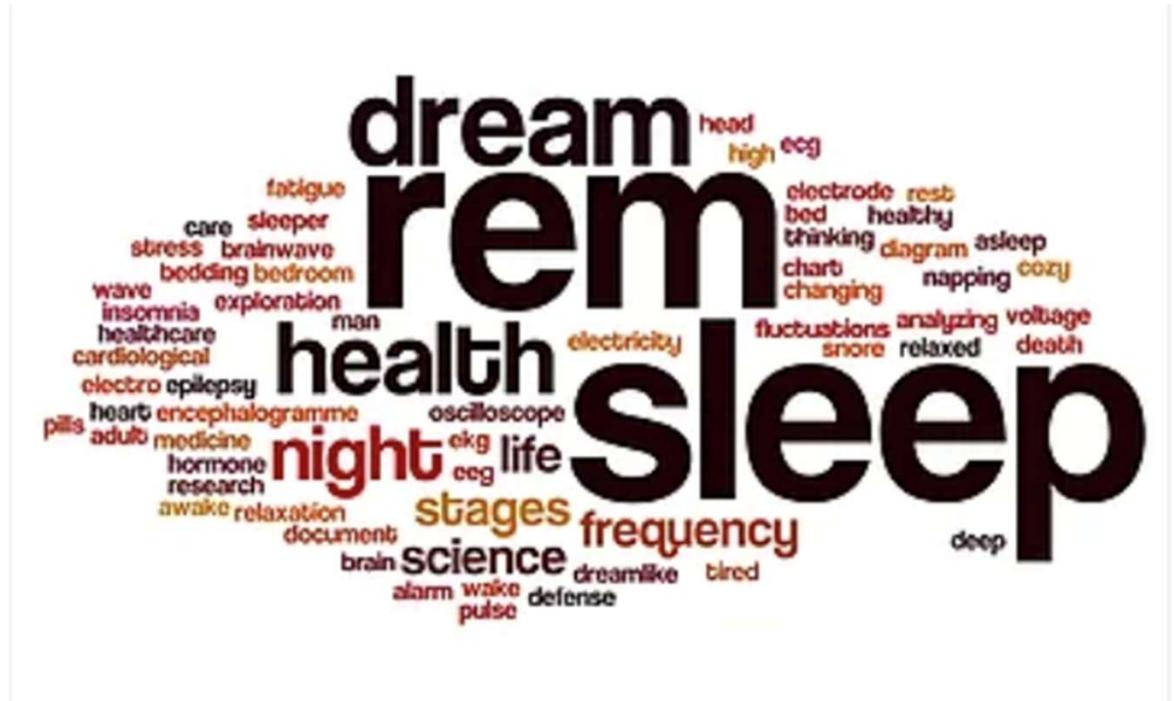
Brain Waves and Sleep Spindles

Figure 9: The Brainwaves of Wake and Sleep





REM (Rapid Eye Movement)



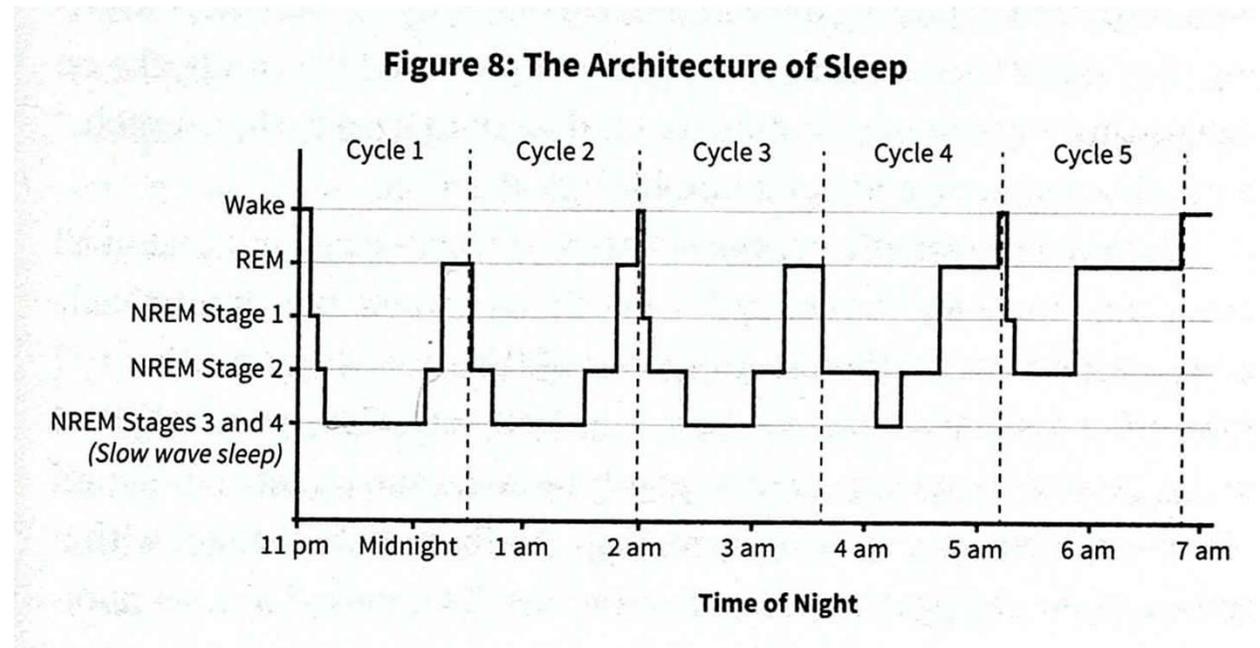
Each Sleep Cycle is Unique and Necessary!

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**NREM Stage 1
(Non-Rapid Eye
Movement)**

NREM Stage 2

NREM Stage 3



Memory

The Hippocampus:

Your personal USB Drive.

Regulates learning

Memory encoding

Memory consolidation

Spatial navigation

Active in all stages,

but Most active during NREM Stage 2



Creativity



During REM sleep, the parts of your prefrontal cortex that regulate impulses and reasoning are turned off. Your brain is then free to make illogical, creative connections that your waking brain would usually reject.

Those “Aha!” moments are facilitated by REM sleep.



Be More Attractive

In tests using photographs of people, participants were asked to rate them based on attractiveness.

After several of the individual had been deprived of 1 full night's sleep and then photographed again, the same individuals who were first chosen as attractive were now deemed unattractive.





Stay Slimmer and Lower Food Cravings

Short sleep:

- Increases hunger and appetite
- Compromises impulse control in the brain
- Increases food consumption, especially high calorie foods
- Decreases feelings of satisfaction after eating
- Prevents effective weight loss when dieting

Lowers the Risk of Diabetes

Sleep deprivation is now recognized as one of the major contributors to the escalation of Type 2 Diabetes.

Limiting a group of healthy individuals to 4 hours of sleep for 6 nights reduced their body's ability to absorb a standard dose of glucose by 40% as compared to when they were fully rested!



Protection from Cancer

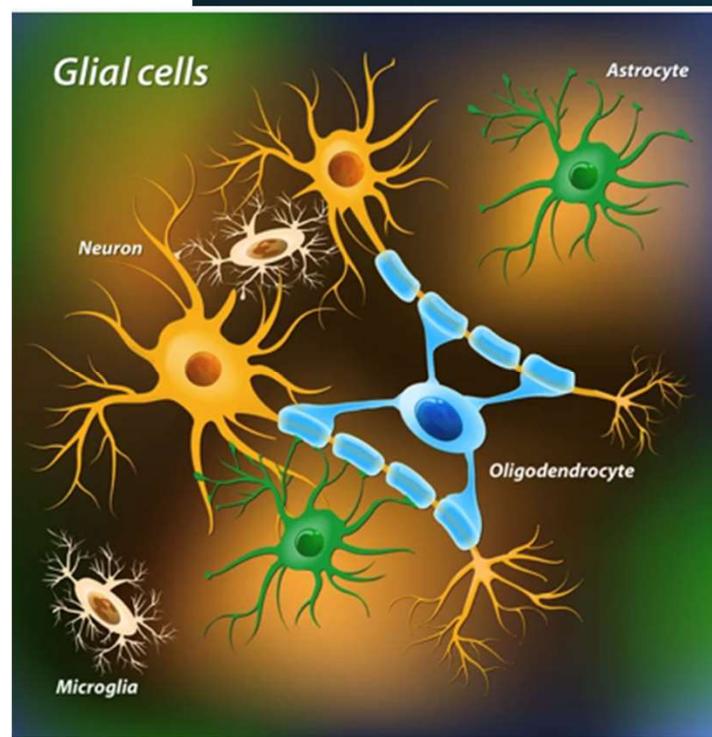
One night of 4 hours sleep removes 70% killer cells circulating in your immune system. These are the cells that hunt out cancer cells and kill them before they can multiply.

Short sleep hyper activates the Sympathetic Nervous System causing sustained inflammation leading to chronic inflammation which in turn causes many health problems including cancers.



Protection From Alzheimer's Disease & Dementia

- Alzheimer's Disease is associated with the buildup of beta-amyloid which aggregates in plaque in the brain that kills the surrounding brain cells.
- The Glymphatic System in the brain is a kind of sewage system.
- Glia cells occupy space throughout the brain beside with the neurons that generate the electrical impulses in the brain.
- During waking hours, they collect the toxic waste byproducts of the neurons, much of which is amyloid protein, and remove it by means of cerebrospinal fluid that bathes the brain.
- During NREM sleep there is a 20-fold increase in this effluent expulsion from the brain as the glial cells shrink to allow more room for the fluid to flow and collect the waste.



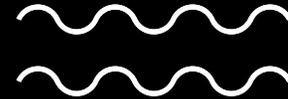
Wards off Colds and Flu

- When exposed to the common cold virus in trials, those with 5 hours of sleep in the week before exposure had an infection rate of almost 50%, while those sleeping 7 hours or more had an 18% infection rate.

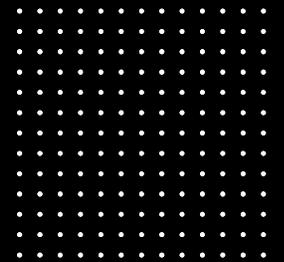
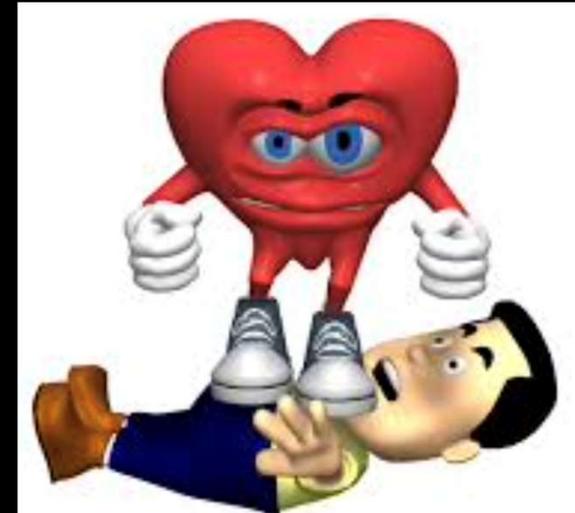
- In tests with the flu vaccine, those getting 5 hours of sleep a night for 6 nights before the vaccine produced 50% of the antibodies as those getting 7 or more hours of sleep! Sleeping after the vaccine ~~showed no improvement in the sleep deprived group.~~



Lowers the Risk of Heart Attack and Stroke!



- In studies around the world those who sleep less than 6 hours a night are 400% to 500% more likely to suffer cardiac arrests than those sleeping more than 6 hours a night.
- They are 200% to 300% more likely to have calcification in their arteries.
- Insufficient sleep causes the sympathetic nervous system to rev up releasing cortisol and causing blood pressure to rise.
- During NREM sleep, the long, slow waves send a calming signal to the fight-or-flight part of the brain.



Be Happier, Less Depressed, Less Anxious!

- A full night's sleep yields a balanced mix between the prefrontal cortex (logic and executive functions) and the amygdala (emotions)
 - Those sleep deprivation show 60% more emotional reactivity in the amygdala when viewing pictures evoking emotional responses
 - Sleep deprivation is associated with substance abuse
 - Sleep deprivation also leads to suicidal thoughts as the amygdala is over stimulated and not balanced with the prefrontal cortex.
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Our Jobs are Killing Us...Literally

The lack of regular sleep of 7 or more hours will rob you of your quality of life and lead you to an early grave.

So, what can be done?



The Source Material

