

# How Important is SLEEP?

Your Brain

Your Body

Basic Facts

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## Your Brain for \$100

True or False: Lack of Sleep Slows Down Your Thought Process



# Your Brain for \$100

Answer: True



Scientists measuring sleepiness have found that sleep deprivation leads to lower alertness and concentration. When the brain has not received enough rest, it is more difficult to focus and pay attention, so you're more easily confused by the tasks and processes you engage with.

## Your Brain for \$200

It's a normal school day, and you are driving to school. You didn't sleep well the previous night. All of a sudden, the car in front of you slams on the brakes. Is your reaction time going to be slower or faster than if you got a good nights rest before?



# Your Brain for \$200

Answer: Slower



Slower! Sleepiness makes your reaction time slower, a special problem when driving or doing work or other tasks that require a quick response. Good luck not hitting that car in front of you!

## Your Brain for \$300

Lack of Sleep Causes Which of the Following

- a) Slurred Speech
- b) Hallucinations
- c) Permanent Brain Damage
- d) All of the Above



# Your Brain for \$300

## Answer: All of the Above

Over long periods of time suffering from sleep deprivation, hallucinations, slurred speech and permanent brain damage can occur within an individual.



## Your Brain for \$400

Sleep Deprivation causes memory loss. Memory loss occurs in which part of the brain?

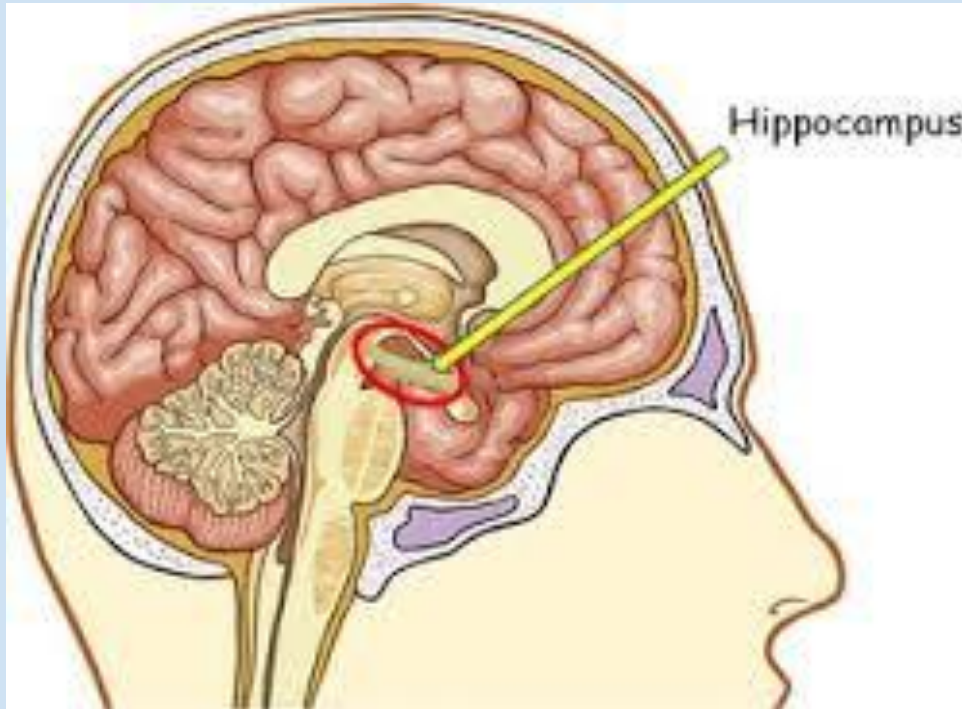
- a) Hippocampus
- b) Visual Cortex
- c) Frontal Lobe
- d) Amygdala





# Your Brain for \$400

## Answer: Hippocampus



The Hippocampus is responsible for the storage of long term memory, as well as the location of objects and people. It is also partly responsible for emotional responses. Sleep deprivation causes the hippocampus to stop working as effectively, which can cause memory loss.

## Your Brain for \$500

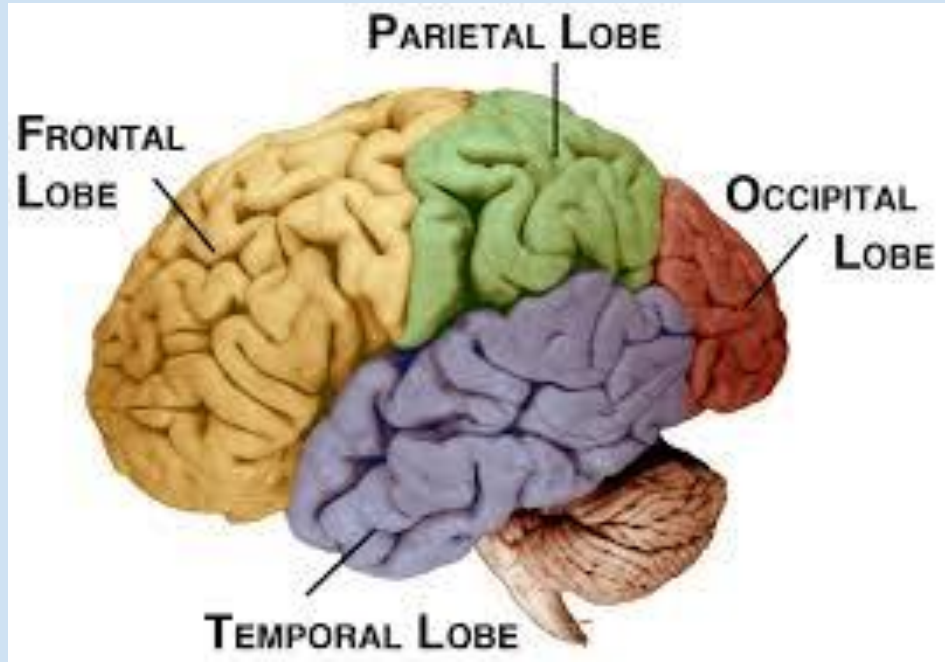
Sleep loss causes cerebral shrinkage in the \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ lobes.



## Your Brain for \$500

Answer: frontal, temporal, and parietal lobes

Sleep deprivation affects the Frontal Lobe, which is responsible for cognitive skills and emotional expression, the Parietal Lobe, which integrates sensory information, and the Temporal Lobe, which is responsible for hearing, among other tasks.



## Your Body for \$100

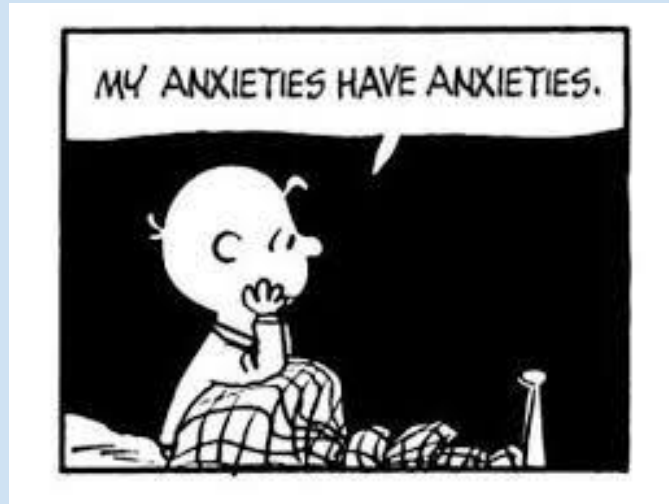
Does sleep deprivation increase or decrease anxiety?



# Your Body for \$100

## Answer: Increase

Lack of sleep can decrease your ability to handle stress, thus promoting your body's fight-or-flight response, increasing the amount of anxiety an individual feels!



## Your Body for \$200

True or False: Lack of sleep increases your likelihood of having a stroke



# Your Body for \$200

## Answer: True



Sleep deprivation has been found to be a risk factor among strokes, heart attacks and cardiovascular disorders.

## Your Body for \$300

You didn't sleep well last night. The bell rings, and it's about to be lunch time. Are you hungry, or not hungry?





# Your Body for \$300

## Answer: Hungry

The lunch bell rings, and you are starving! Sleep deprivation has been linked to an increase in appetite, and can cause weight gain as a result of lack of sleep.



## Your Body for \$400

Scenario:

You have just suffered through a night studying for a test. You grab a cup of coffee (or two) in the morning on the way to school. True or false: You have just successfully compensated for the previous night's lack of sleep

# Your Body for \$400

Answer: False



False! You may have compensated for short term effects of drowsiness and your focus for the test through caffeine, but long term sleep deprivation effects, such as high blood pressure, mood changes and a weakened immune system are still in effect if an adequate night's rest is not achieved.

## Your Body for \$500

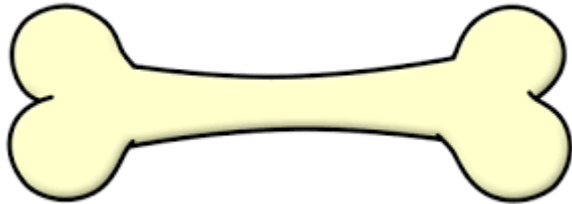
Which of these conditions are influenced by a lack of sleep:

- A) Inability to process other's emotions
- B) Skin Damage
- C) The reduction of the effect of vaccines
- D) Bone density loss
- E) All of the Above
- F) A and C

# Your Body for \$500

## Answer: All of the Above!

When sleep deprivation occurs, bone density can be lost, emotional processing is more difficult, and the effect of vaccines decreases. The brain and body loses its ability to heal itself, and skin damage occurs, as well.



## Basic Facts for \$100

How many adults in America do not get enough sleep?

- A) 1 in 3
- B) 1 in 5
- C) 1 in 10
- D) 1 in 20



## Basic Facts for \$100

Answer: A) 1 in 3

According to the Center for Disease Control and Prevention, 1 in 3 adults do not get enough sleep. Enough sleep is categorized as 7 hours or more.



## Basic Facts for \$200

True or False:

Untreated insomnia is more likely to lead to mental health issues, such as depression and paranoia



## Basic Facts for \$200

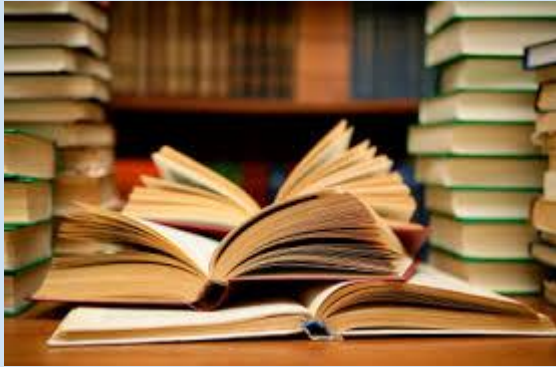
Answer: True

True! Untreated insomnia can cause mental health conditions to worsen, whether the problem be paranoia, depression, bipolar disorder, obsessive compulsive disorder or general mood disorder.



## Basic Facts for \$300

You are up late the night before a test. You have yet to fully dedicate yourself to studying for this test. You have two options: You can cram for the exam and stay up late until the night, or get a good night's rest before the exam. Which of the two options will give you better test results?



## Basic Facts for \$300

### Answer: Sleeping

A study done at the University of California Los Angeles (UCLA) followed students from Los Angeles-area high schools, recording how long they studied for and how long they slept. The findings indicated that no matter how much you cram before a test, you are going to struggle the following day without a good night's sleep. In fact, the researchers found that the more sleep was sacrificed for study, the worse the student performed on average on the exam they were studying for.

## Basic Facts for \$400

Going one night without sleep can have similar effects as having a blood alcohol content (BAC) of:

- A) 0.06
- B) 0.10
- C) 0.26
- D) 0.01

# Basic Facts for \$400

Answer: 0.10% BAC

Going one night without sleep can make an individual feel as if they have 0.10% Blood Alcohol Content. For reference, the legal driving limit for alcohol BAC in Virginia is .08%. That means driving without a night's rest can be just as low-performance, and dangerous, as driving drunk.



## Basic Facts for \$500

Sleep deprivation has been linked to what activity:

- A) Driving without a license
- B) Increased internet usage
- C) Increased Physical activity
- D) Decreased musical listening activity

# Basic Facts for \$500

## Answer: B

Sleep deprivation has been linked to internet usage- specifically surfing the web using some electronic device (cell phone, laptop computer) before bed. This is because exposure to the blue and white light that cell phones, laptops and other electronics emit can prevent our brains from releasing melatonin, a hormone that tells our bodies that it is time to sleep.

