

# Sleep Deprivation

## Introduction

I chose sleep deprivation because it is something I feel is very important. I feel that many people have this problem especially college students. I feel it will be a very interesting topic to learn about because there are different reasons for a lack of sleep.

Since sleep is so important, so I am interested in learning about how to sleep better and more efficiently. I believe this is a reason I am always tired, and want to learn how I can change this problem and make my days more productive. Being in college and living on campus makes it hard to have a routine sleep schedule. I also have morning classes a few days a week and then afternoon the other days. This makes it hard to have a regular schedule.

In my family there has been strokes, and high cholesterol which can lead to heart disease. These are already genetic health problems so adding sleep deprivation makes it even worse. I think that it is important to learn all of the side effects to sleep deprivation and try to fix the problem so I can avoid any type of health risk.

This topic seemed like a good idea because I have trouble sleeping at school and staying on a schedule. It will be interesting to learn about the different side effects to sleep deprivation, and the treatment of them.

## Section 1: Background and Problem Statement

- **Web site #1 Name:** Healthy People 2020
- **Web address:**  
<http://healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=38>
- **Background Information:**
  - Sleep is an important part of a human's life. People cannot live without sleep because it is needed to maintain a healthy life style. Sleep is needed to help people when they are sick by fighting germs, and to help people perform everyday tasks such as working or driving. Without enough sleep people can become sick or cause other health problems on themselves. Sleep has become less important to people especially if they have time demanding jobs. Sleep seems to have taken a backseat for people because they do not see the importance of it.
  - This could be a public health problem because people need sleep to function at their best ability. People need to understand that sleep is just as important as a healthy diet and exercise. This is when the body has a chance to build immunity and repair itself.
  
- **Web site #2 Name:** WebMD
- **Web address:**  
<http://www.webmd.com/sleep-disorders/guide/important-sleep-habits>
- **Background Information:**
  - Sleep deprivation is caused by many different situations. Many people will avoid going to bed because of extra work or social activities. This causes them to be

tired and sleep deprived the next day. If this is done long term then it can cause serious health risks including strokes, and risk of heart disease. Sleeping will help avoid these risks that are already prone to people these days. Getting enough sleep will help people have a better outlook on life also. Without proper sleep people are also more likely to become depressed. Sleep is needed to maintain a healthy lifestyle, and to avoid many health risks psychologically and physically.

- **Web site #3 Name:** WebMD
- **Web address:**  
<http://www.webmd.com/sleep-disorders/guide/sleep-requirements>
- **Background Information:**
  - Not enough sleep can cause many cognitive problems also. Without enough sleep people cannot function and react as quickly as they would like to. This could be problematic in certain situations. People need to sleep enough hours a night to feel awake and ready for the day. This is important because not sleeping enough can cause car accidents and machine accidents because of the fatigue one feels. This is unsafe because a person can harm themselves and others. Not getting enough sleep and driving can cause a serious accident. The National Sleep Foundation states that if there is a lot of yawning, cannot pay attention, or don't remember driving the last few miles, that individual should not be driving and needs rest.
  - Sleep is very important for health and safety reasons. Keeping your body healthy should be important to people and sleep is needed to do this. Sleep is important and could save lives, by not being too tired to work, or driving a car.

## ○ **Section 2: Research**

**Web site #1 Name:** WebMD

- **Web address:**  
<http://www.webmd.com/sleep-disorders/news/20101025/sleep-deprivation-tolerance-may-be-genetic>
- **Summary of the research:**
  - It has been shown through research that the reaction to sleep deprivation could be genetic. This is important because sleep deprivation could cause serious health problems. This could help people who work different shifts or have sleeping disorders because it will allow them to understand how their body will cope. The research showed that the people with the gene wake up more often and do not gain as much deep sleep as someone who does not have this gene. Learning how someone's body will react to lack of sleep could improve their lifespan by being aware of the different problems that could occur.

- **Web site #2 Name:** PubMed Journal List
- **Web address:**  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2845795/>
- **Summary of the research:**
  - Sleep deprivation can cause many different problems for people. Studies have shown that it can lead to hypertension, and heart disease. It is also shown in

studies that people who sleep more are more likely to live longer. People with seven to eight hours of sleep a night are more likely to have fewer cases of cancer, stroke, and heart disease. Sleep is needed for the body and studies are showing that people who allow better sleep rates are healthier longer.

- Studies are showing that work can cause people to sleep less, and that can lead to health problems. Coronary heart disease is more likely to be in men if they work over 67 hours a week. This is not allowing the correct amount of sleep the body needs. Sleep is very important and needs to be taken seriously. To lower the health risks of people, they need to understand that sleep is just as important as food or water.

- **Web site #3 Name: WebMD**

- **Web address:**

<http://blogs.webmd.com/sleep-disorders/2010/04/social-networking-sleep-deprivation-and-teen-drug-use.html>

- **Summary of the research:**

- A Harvard study was conducted to show that adolescents that do not get enough sleep can be from peer pressure. It also showed that sleep deprivation can be caused by social networking. The study showed that adolescents who were around peers and slept less were more likely to use marijuana. All of this is influenced by using social networking. It causes sleep problems and the less the teens sleep the more they are likely to use drugs.

### Section 3: Statistics

- **Web site #1 Name: Centers for Disease Control and Prevention**

- **Web address:** <http://www.cdc.gov/Features/dsSleep/>

- **Summary of the statistics:**

- In 2006 a survey was done in three different states and it showed that about seven percent of the state's population sleeps less than seven hours a night. It also reported that around 60 million people do not sleep a full night and have other sleep disorders.
- The CDC did another study in 2008 with all 50 states to see the different sleep patterns in the entire country. This showed that 30.4% do not have any sleep problems, 41.3% said they have 1-13 days of sleeping problems, 16.8% said they have 14-29 days of sleep problems, and 11.1% said they have sleep problems all 30 days. These statistics show that there is a problem with people's sleeping habits. These show that these people are more at risk of developing other health problems because they are not sleeping enough. It also showed that females are more likely to have sleep problems than males.

- **Web site #2 Name: Sleepdex**

- **Web address:**

<http://www.sleepdex.org/deficit.htm>

- **Summary of the statistics:**

- A poll in 2002 called “Sleep in America” showed that almost 50 percent of the population said that they needed eight hours of sleep a night to feel rested for the next day. Most people do not get enough sleep because they have busy lifestyles and cannot spend enough time sleeping. It showed that most people get 6.9 hours of sleep on a weekday and 7.5 on the weekends. This is not the eight hours they feel they need. This poll showed that people are not getting enough sleep and this can lead to other health problems. Lots of times people cannot get enough sleep because they wake up or cannot sleep because of other underlying sleeping disorders. Many Americans are not allowing enough sleep in their busy lives and this over a long period of time can cause many problems.

**Web site #3:** The California Aggie

- **Web address:**

<http://theaggie.org/article/sleep-deprivation-soars-among-college-students>

- **Summary of the statistics:**

- A study done by the University of Saint Thomas showed that most college students are not getting enough sleep. This means that they are not getting the eight hours of sleep they feel is needed. Many college students also have trouble going to sleep at a reasonable hour because of the social and emotional stress they feel. This can be caused by school and hanging out with friends. This makes it hard for students to go to bed. About 20% of the students will pull all nighters at least twice a month and 35% will stay up until three in the morning at least once a week. This causes many problems with a sleep habit and getting enough hours of sleep a day. This does not seem to be getting any better among college students.

## Section 4: Consumer Information

- **Web site #1 Name:** MedlinePlus

- **Web address:**

<http://www.mayoclinic.com/print/diabetes/DA00038/METHOD=print>

- **Summary of the information:**

- Menopause and diabetes can cause different problems. The combination of both diseases can cause sleep deprivation. Menopause can cause night sweats. These make it hard to sleep because it is uncontrollable. When people do not get enough sleep it also makes it harder to control blood sugar levels. This would then affect diabetes.

- **Web site #2 Name:** MedlinePlus

- **Web address:**

<http://vsearch.nlm.nih.gov/vivisimo/cgi-bin/query-meta?v%3Aproject=medlineplus&query=consumer+information+sleep+deprivation&x=0&y=0>

- **Summary of the information:**

- Many people these days are caregivers. This means they take care of a loved one on a daily basis. They always put their loved one before them. This can cause serious health problems for the caregiver. Many complain of sleep deprivation, and poor diet. Without enough sleep their body won't get enough time to reset

itself. This could cause problems later on. Many care givers end up in the hospital before their loved one because of the amount of stress they are dealing with. Sleeping enough every night is a major key to surviving and living a healthful life.

- **Web site #3 Name:** Mayo Clinic
- **Web address:**  
<http://www.mayoclinic.com/health/how-many-hours-of-sleep-are-enough/AN01487>
- **Summary of the information:**
  - People also ask how many hours of sleep is truly enough for most people. This changes from person to person, but on average an adult should obtain about seven to eight hours a night. This could change from aging or if other sleep deprivation already occurred. It could also change as someone gets older or is pregnant. Without the correct amount of sleep many people are not performing at their best expectation because they are drowsy. It is important for people to know what the correct amount of sleep is for health problems.

## Section 5: Solutions to the Problem (or Issue)

- **Web site #1 Name:** Centers for Disease Control and Prevention
- **Web address:**  
<http://www.cdc.gov/Features/dsSleep/>
- **Summary of the information:**
  - According to the CDC, people should take precautions before they try and sleep. Some examples would be to avoid caffeine, nicotine, and alcohol before sleeping. They also recommend sleeping on a regular schedule to help the body know when it is time for bed. Avoiding any exciting activities a few hours before bed also helps with falling asleep. Being aware of the different ways to sleep better and improve someone's outlook on life and avoid health problems. Sometimes medical treatments such as supplements are needed for severe cases.
  
- **Web site #2 Name:** Future Health
- **Web address:**  
<http://www.futurehealth.org/populum/page.php?f=Natural-Solutions-To-Sleep-by-Hyla-Cass-100630-850.html>
- **Summary of the information:**
  - In the future health article, the doctor who wrote it Hyla Cass, talks about ways to help people sleep more soundly. She says that there is a 7% increase of sleep aids prescribes since 2007. This is a large increase. She instead likes to take more natural routes. Instead of prescribing drugs she will advise her patients to take melatonin which is a natural chemical in the brain that helps with sleeping and the amino acid 5-HTP, which naturally helps produce serotonin. She takes the natural side of the topic to help people. People need sleep if they are not getting enough of it there are other ways to solve the problem other than drugs. Instead they can use products that promote natural hormones in the body.

- **Web site #3 Name:** National Sleep Foundation
- **Web address:**  
<http://www.sleepfoundation.org/article/sleep-topics/healthy-sleep-tips>
- **Summary of the information:**
  - The National Sleep Foundation has some helpful tips to help people sleep. Some tips are to make sure there is a regular sleeping time. This will make it easier for fall asleep at night and to help with relaxing. This should be done even on the weekends allowing the week to be normal. This will help get more sleep and to wake up well rested. It is also advised for people to have a routine to help them relax. One example is to avoid anything that might cause excitement, stress or anxiety before bed. Instead read a book, listen to relaxing music or even a warm bath. The sleep foundation also suggests that people make sure they are making it a comfortable place to sleep. It is dark, and cool enough. The bed is also comfortable to the individual. It also suggests avoiding alcohol and nicotine, and eating a few hours before bed. All of these can cause sleep to be disrupted.

## Conclusions

After researching this topic, I learned a lot about sleep deprivation. I did not know how many hours were truly needed a night. I also learned the health effects it can have on me. I know I do not get enough sleep because I am always up late doing homework or hanging out with friends and then getting up early. I did not realize how much it could affect me later in life. I am now more aware of the problems it can cause such as heart disease, cancer and strokes. These all run in my family already so doing something as simple as sleeping is a big deal. I learned that precautions are needed to become a safe, healthy person. I did not realize that when people drive and are not paying attention, or forget where how they go there was because of sleep deprivation. I always thought it was because people did not pay attention.

I felt this was a very interesting topic to research because it can be serious and learning about the different ways to help people sleep better and the different disorders that can cause sleep problems was very interesting. I knew of melatonin to help people sleep, but some other natural supplements there are I did not know about and found interesting. I also now realize that caffeine has a lot to do with the reason I do not sleep as well. I learned that drinking too much caffeine can cause insomnia which leads to sleep deprivation. I feel this problem happens a lot. I also learned how hard it is for college students because they are faced with so many different problems with sleep. It is very hard to be on a regular schedule when there are fun things to do on the weekend. This can cause sleep deprivation because the body cannot get onto a steady schedule. I found this interesting because it relates to my life.

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## Five-minute Twitter Brief

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- People should obtain eight hours of sleep a night.
- It is suggested to be on a schedule, and to avoid eating, nicotine, and alcohol a few hours before bed.
- College students who are sleep deprived are more likely to use marijuana.

- Sleep deprivation can cause serious health problems such as stroke, heart disease, and cancer.
- It can also be dangerous for people who are driving or working with heavy machines.

Twitter message: 20% of the students will pull all nighters at least twice a month and 35% will stay up until three in the morning at least once a week, causing health problems later in life.

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