



# The Wellness Family

Dr. John Ferguson Keeps You Informed

## The Essentials of Sleep

We should spend over a third of our lives sleeping, but many don't understand the significance or importance of getting a good night's rest. The majority of people are not aware that less than 5 hours of sleep per night has been linked with an increased risk of heart disease, migraines and even chronic pain. Sleep is an integral part of the wellness lifestyle.

### What is sleep?

Sleep is typically defined as a state of unconsciousness from which it is possible to be awakened. There are two states of sleep that alternate in cycles. Each state of sleep is characterized by a different type of brain wave and these states are known as non-rapid eye movement (NREM) and rapid eye movement (REM).

In the past it was assumed that a sleeping person was inactive or in a completely passive state. Now it's been determined that the brain is incredibly active during sleep. In REM sleep, the time typically associated with dreaming, the electrical activity recorded in the brain is similar to that recorded when awake.

A full night's sleep can be divided into three equal time periods; the first comprises the highest percentage of NREM, the second third is a mixture of both, and the last third is mostly REM. A person awakening after a full night's sleep will typically wake from REM sleep.

### What is normal sleep?

The average adult should sleep about 8 to 8 ½ hours each night. In some cultures it's normal to sleep 6 to 7 hours each night and take a nap of 1 to 2 hours a day. Rarely an individual can function perfectly normal on just 5 hours or some may require up to 10 hours a day but it's important that each person sleeps as much as is needed for their body to properly function.

Infants have an overall greater total sleep time than any other age group. Their sleep requirements can be anywhere from 14 to 16 hours a day for the first 4 to 5 months. As they reach about 6 months they will typically sleep through the night and need at least one long nap in the middle of the day.

### What is sleep deprivation?

Sleep deprivation is defined as a reduction in the usual total sleep time for more than one or two days whereas chronic sleep insufficiency exists when an individual doesn't get the necessary amount of sleep required for optimal functioning on a routine basis.

Sleep affects physical and mental health and is essential to normal functioning of all the body's systems including the immune system. Just 24 hours of sustained wakefulness results in a decrease in body temperature, a decrease in immune system function as measured by white blood cell count, a decrease in the release of growth hormone and an increased heart rate.

Studies have shown that losing just 1 hour of sleep a night for one week can result in impairment of higher-order cognitive tasks such as driving or other tasks that require hand-eye coordination. Just 2 to 3 hours less over a week results in sleep deprivation and the sleep-deprived have proven to perform worse in similar tasks than those that are legally intoxicated.



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Once a few hours of sleep have been lost for two or more nights this may create what is known as "sleep debt" and those hours must be repaid over the next few nights to avoid sleep deprivation. It should also be noted that caffeine and other stimulants are not successful in overcoming the drowsiness commonly associated with sleep deprivation.

### What interferes with sleep?

Many times it's not a lack of action but actions that can interfere with sleep. The average person should be able to get into bed and drift off within 5 to 15 minutes. If this is not the case then something is interfering with the typical sleep pattern.

Sleep, or the lack thereof, is influenced by different neurotransmitters in the brain and some substances can change the balance of these causing sleep interference. Caffeinated drinks or medicines (such as some diet pills) stimulate parts of the brain and can cause insomnia.

Heavy smokers tend to wake up after 3 or 4 hours of sleep due to nicotine withdrawal and alcohol has been linked to insomnia. While alcohol consumption may help someone to fall asleep faster it keeps them in the lighter stages of sleep from which they can be more easily awakened.

A common cause of sleep interference is diet. Eating late at night or eating foods that are high in sugar can affect a person's ability to fall asleep. Although not typically considered a stimulant, sugar and refined carbohydrates can interfere with sleep by triggering the "fight or flight" part of the nervous system causing wakefulness.

Sleep apnea can also interfere with getting a good night's sleep. Apnea literally means to stop breathing; an individual with sleep apnea may stop breathing in the middle of the night. When this happens the brain will trigger a response and breathing will resume with a loud gasp, snort or a body jerk. These episodes will interfere with sound sleep and sleep apnea is very dangerous as it has been linked with high blood pressure, heart disease, diabetes, adult asthma and more.

Last, but certainly not least, is environment. A good night's sleep will be easily affected by a mattress that is either too firm or not firm enough, a poorly supportive pillow, and ambient lighting. Pain from a stiff back or neck while sleeping will interrupt sleep and once awake any light in the room may make it difficult to fall back to sleep.

### **How is sleep improved?**

About 60 million Americans a year have reported frequent insomnia or difficult sleeping for extended periods of time. It tends to increase with age and affects about 40% of women and 30% of men. The typical medical response to insomnia is a prescription for sleeping pills, but most will stop working after routine use and all will have one or more of the following side effects: headache, muscle aches, trouble concentrating, dizziness, unsteadiness or rebound insomnia (a worsening of long-term insomnia if a patient stops taking the drug).

There are many things that can be done to improve sleep. Some logical dietary options include not drinking caffeine after 3 PM, keeping alcohol consumption to a minimum (or not at all) and not eating late at night or right before bedtime.

Another sleep improvement option includes "unplugging" at least an hour before bed. There are cells in the eyes that can affect the ability to sleep by registering if it is day or night. These cells cannot differentiate between real or artificial light and may be affected by light from a TV, computer or smartphone screen. Eliminating these sources of light (as well as the accompanying stimulation) at least an hour before bed may be wise.

The effect of light may also affect those who are awakened in the middle of the night by a call of nature. If possible, it's important to rely on a night light or other softer light source as exposure to a bright light in the middle of the night may be enough to reset the body's internal clock and make it difficult to return to sleep.

Many times insomniacs report that their brains "just won't shut down". This may be assisted with calming exercises prior to sleeping; for instance, reading a good book, meditating, gentle stretching or soaking in a warm tub an hour before bed.

Finally, a regular sleep schedule has proven to be conducive to a good night's sleep. Going to bed at a regular time and awakening around the same time each morning helps support the body's internal clock.

### **The Chiropractic Factor**

Beyond the obvious discussion of proper mattresses and pillows to support your neck and spine, your Family Wellness Chiropractor can discuss other wellness options to support your sleep lifestyle. If you're having a difficult time going to sleep and waking well-rested, wellness options should be considered before resorting to prescription drugs.

For more information visit [www.huffingtonpost.com/2013/09/11/natural-sleep-aids\\_n\\_3882229.html](http://www.huffingtonpost.com/2013/09/11/natural-sleep-aids_n_3882229.html)



*Dear Patient,  
Dr. John is dedicated to providing you with the absolute best in family wellness care. So take a moment today to discuss with your Family Wellness Chiropractor any concerns you may have regarding your family's overall health and wellness.*

### **This newsletter is provided to you by:**

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