Sleep disorders: narcolepsy, insomnia, obstructive sleep apnea

Health & Medicine, Sleep Disorders



Sleep disorders are more common than we realize. Because most people are not familiar with the signs of sleep disorders, they often suffer from their disorder or they are misdiagnosed. This research paper focuses on three main sleep disorders: Narcolepsy, Insomnia, and Obstructive Sleep Apnea. For information, I turned to the World Wide Web. I was looking for clear, concise data on which to build the foundation of my research paper. There were countless information sources that support sleeping disorders and how to treat them. I used the information I found on four different websites to further describe the sleep disorders narcolepsy, obstructive sleep apnea, and insomnia.

Sleep Disorders: Narcolepsy, Insomnia, Obstructive Sleep Apnea

Sleep disorders are very common among men and women around the country. Unfortunately, many do not realize the symptoms of a sleep disorder. " At least forty million Americans each year suffer from chronic, long-term sleep disorders, and an additional twenty million experience occasional sleeping problems." (Ninds) This paper focuses on sleep and three main sleep disorders: narcolepsy, obstructive sleep apnea, and insomnia. Additionally, this paper will discuss the side affects and treatments for each.

How much sleep our bodies need depends on many dynamics, especially age, that are unique to each person. The typical adult needs only seven to eight hours sleep while children and teens tend to need more. In a deep state of sleep, growth hormones are released into the bodies of adolescences. Babies need long periods of sleep to enhance proper brain development. If you are sleep deprived, you will most likely need extra sleep time to catch up on your sleep debt. Having a sleep debt tends to impair judgment, rationality, and other sensory functions.

Why do we sleep? " Sleep appears necessary for our nervous systems to work properly." (Ninds) Sleep deprivation can reduce your ability to concentrate and increase the likelihood of delirium and general irritability. While you are sleeping, your brain is busy at work repairing and replenishing your body. You may be resting but your brain is not, it is eternally awake and sending message via neurotransmitters to nearly every part of your body.

There are five stages of sleep: Stages one through four and rapid eye movement (REM) sleep. " These stages progress in a cycle from stage one to REM sleep, then the cycle starts over again with stage one." (Ninds) Each cycle lasts about ninety minutes. Stage one is a light sleep in which you may be easily awakened. As each stage progresses, sleep becomes deeper and it is harder to be awakened. The most important sleep is deep REM sleep. During REM sleep our breathing becomes quicker and uneven. Our eyes move or twitch behind the eye lids while our entire body becomes briefly paralyzed. REM sleep usually occurs near the end of the sleep cycle and is typically the stage in which we begin to dream.

Our eating habits and the medications we ingest, whether prescribed or over the counter, often have an overwhelming effect on how well we sleep or do not sleep. Caffeine, dietary supplements, and other medication can cause us not to reach REM sleep or not to sleep at all. " Heavy smokers often sleep very lightly and have reduced amounts o REM sleep." (Ninds) Missing large amounts of REM sleep can leave us feeling drowsy or tired. Insomnia

Now that we know a little more about sleep we can explore its disorders. The most common of all sleep disorders is insomnia. "Insomnia, which is Latin for " no sleep," is the inability to fall asleep or remain asleep." (Sleep Foundation) Women tend to be affected by insomnia more than men. While insomnia can be considered a stand-alone disorder, it is commonly caused by some other abnormality within the body. This sleep disorder can persist from a few days to years. It can be caused by an array of factors, some of which we can control some we cannot. Most common triggers of insomnia are stress, changing time zones, anxiety, and changes in work shifts. For slight cases of this pesky sleep malady doctors may use a mild sedative to help our body rhythms to readjust. If a round of sleeping pill therapy does not cure insomnia, chances are there is an underlying culprit present. Often it is the medicines that we take for other illnesses that keep up from getting a good night sleep. Some include, birth control, diseases of the heart, gastrointestinal drugs, beta blockers, and medicines for cold and allergies. Anti-depressants are most likely to inhibit sleep.

The annoying symptoms of insomnia include waking from sleep repeatedly during the night, petulance, sleepiness during the day, waking up too early and difficulty falling asleep. Luckily for us, we have a variety of options to alleviate insomnia. Changing your sleep environment can make a big difference in your sleep experience. Use your bedroom for sleep only and remove sleep distracting mechanisms such as televisions. Other forms of

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treatment are pill therapy, behavior and cognitive therapy, and diet changes. If your bout of insomnia is stress related relaxation techniques can prove to be helpful. Physical exercise is always beneficial as well. Narcolepsy

One of the most intriguing sleep disorders is narcolepsy. "Narcolepsy is a neurological disorder caused by the brain's inability to regulate sleep-wake cycles normally." (Sleep Foundation) The term narcolepsy is derivative of the Greek term numbness or sleep. Individuals with narcolepsy often suddenly fall asleep without a pre-emptive warning. People with narcolepsy are not constantly sleepy; their sleep habits are much like healthy sleepers. Narcoleptics cannot control the timing of their sleep segments which can put them in harms way. This disorder can affect men and women equally.

Common side effects of Narcolepsy are temporary paralysis (common occurrence within REM sleep), brilliant visual delusions, daytime sleepiness, body twitches, and frequent sleep disturbances throughout the night. Diagnosis of narcolepsy is often difficult. Although the disease exists, there are currently no cures. However, much like insomnia, it can be treated in a variety of ways including behavioral modification therapy. Behavior modification may include changing your dietary habits, limiting caffeine and other sleep eradicating agents, as well as medication therapy. The prescription medication " sodium oxybate improves excessive daytime sleepiness in narcolepsy." (Ninds) Obstructive Sleep Apnea

Sleep apnea is the hardest of sleeping disorders to be diagnosed. There are three forms of sleep apnea: obstructive, central, and complex. Obstructive sleep apnea is the most common of the three. "The word " apnea" literally means " without breath."". (Sleep Foundation) Patients with obstructive sleep apnea wake several times during the night having been awakened by interruption in breathing. Muscles at the back of the throat fail to keep the airway clear which causes the windpipe to cave in. The pause in breathing usually lasts from five to ten seconds. We wake up in an effort to " catch our breath" and fall asleep again once we are breathing.

" More than 18 million American adults have obstructive sleep apnea." (Sleep Foundation) Both men and women are subject to have apnea; however, men are more prone to it. Though it is rare, children can have sleep apnea as well. Some of the common side effects of obstructive sleep apnea are: depression, irritability from lack of sleep, sexual dysfunction, and the inability to concentrate. The most common sign of this disorder is snoring. Because all forms of sleep apnea can be life-threatening, it should be diagnosed and treated immediately. It is usually helpful to have a sleeping partner keep a journal for several nights to collect data on your sleeping habits.

Before treatment can begin we have to be diagnosed. One way to do this is to complete a sleep study. Sleep studies monitor an array of factors and determines whether or not we have mild or acute apnea while the patient is sleeping. Once the study is completed treatment can begin. Again there are many ways to treat sleep apnea but there is no cure. Sleeping on the left or right side can minimize the strain on the throat muscles. This helps reduce the number of airway obstructions. " The treatment of choice for obstructive sleep apnea is continuous positive airway pressure device (CPAP). CPAP is a mask that fits over the nose and/or mouth, and gently blows air into the airway to help keep it open during sleep." (Sleep Foundation) In addition to the CPAP, we can make changes in our personal habits to enhance our sleep experience. We can avoid depressants such as alcohol, practice better eating habits, and exercise. People who smoke, have high blood pressure, are overweight, and have a family history of sleep apnea are the most prone to develop the disorder. Conclusion

With the development of technology we are learning more about sleep than ever before. We once thought of sleep as an inactive state for the body. Now we know that many parts of our bodies are busy at work, especially the brain, while we are sleeping. The sleeping patterns that we have developed individually affect our waking hours as much as our slumber if not more so. By continuing to study the stages of sleep scientists are able to better understand our brain activity. The more learned about the active brain, the more chances we gain in finding cures for our many diseases, not just sleep disorders.

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