



Secrets to  
**Sleeping  
Soundly**

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## Secrets To Sleeping Soundly



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## **The Definition of Sleep and What it Does**

Why is sleep important?

Sleep needs no definition, especially for most people who have longed for the sweet experience of deep slumber, Sleep may be defined as that stage in which a person is supposed to experience total relaxation of body and mind. During sleep, a person is less conscious and less active but his brain is at work.

Proper sleep is important if a person is to keep to his normal duties the next working day. A person who gets little sleep will be more irritable, less focused and more fatigued the next day. Getting less sleep for one night can be an irritant to most people; getting less sleep for weeks can be extremely detrimental to health.

People who lack sleep can wake up troubled the next morning. And, while a person who lacks sleep can still do his normal tasks, he could be doing it in a robotic way and he can start acting like a zombie.

While lack of sleep can cause minor disturbances and changes in a person's behavior and working patterns, it can cause a major catastrophe when a sleep deprived person attempts to drive and subsequently causes an accident. Sleepy drivers have caused deadly accidents on the highways. This is no joke when you consider that almost fifty one percent of drivers feel sleepy behind the wheel. This has led to 100,000 annual crash incidents and the numbers are still increasing.

Why do people get poor sleep?



Most people are deprived of a good sleep for several reasons like a heavy workload which requires them to work late nights, too much television and a very active social life which means too many late-night parties. There are people who experience sleep deprivation because of jet lag or changes in time zones, neighborhood noise or it may be the effect of a medication they are taking.

Other people may stay home doing nothing but they could not sleep properly because of some sleep disorders like insomnia or sleep apnea. Insomnia can be mild or severe, with mild insomnia lasting for a few days and severe insomnia causing lack of sleep for months. A person who has insomnia can try everything but still fails to go to sleep. This can cause fatigue, poor concentration and depression the next day.

Another cause of lack of sleep is sleep apnea or that disorder more popularly known as snoring. Snoring is not only harmful to the person who experiences sleep apnea but also to the companion who is also deprived of sleep due to his or her bed mate's snoring.

We will discuss severe insomnia and sleep apnea in depth in an upcoming chapter.

#### How to avoid sleep deprivation

People who know what is good for them psychologically and physically should try to get as much sleep as possible. It's important to know your priorities because if you keep on prioritizing your current activities with poor sleeping habits you might end up not capable of working at all. Party animals should



keep their partying in check and limit the days when they would be out partying for most of the night.

People who can't sleep because of sleep disorders should see their doctors as soon as possible to get proper treatment. Some disorders like insomnia may just be a result of stress or emotional disturbances but it can also be deeply rooted as when the person is suffering from a psychological imbalance.

Some people may feel refreshed after seven hours of sleep or more. However, there are people who can recharge their energies even after only four hours of sleep. It is not really the hours of sleep that is important but the regularity of your sleeping schedule.

Many busy people have found a way to keep up with sleep by taking power naps, which refers to short naps that can last to a maximum of 15 minutes. People who commute and who use public transportation can also use their travel time to get power naps provided they keep their belongings safe and they can estimate the time needed for them to reach their destinations.

People who experience sleep disorders should also refrain from drinking beverage with caffeine like coffee, tea or even alcohol as these can affect their sleeping habits. It is also advisable to get some easy exercise or stretching during the day or before sleeping time. Reading a boring book that can also get you to sleep.

Lack of sleep can cause poor memory so students who have to take examinations the next day should avoid cramming and get enough sleep the night before the big day. Losing sleep before an exam can make you feel tired and forgetful the next day. You won't like the results!



It is also advisable to keep a regular sleeping schedule no matter how many hours of sleep you have. Do stay on your schedule and if you cannot really go to sleep, it is best to get out of bed and do things that you have been postponing like arranging your photos and their negatives.

There is no standard number of hours for a very good sleep because each person has his own sleeping hours. It is, however, up to you to make sure that you get enough sleep every night.

Insomnia and apnea will be discussed in depth in upcoming chapters.



## **About Sleep Research**

The importance of sleep research

Why should humans spend billions of dollars just to know everything there is to know about sleep? To most people, these billions should be better spent on other more important things than for researching on the most common activity of mankind and that is sleep.

People consider sleep as an ordinary thing maybe because it has been a part of their lives since time immemorial. A person will only understand the value of sleep if he is faced with sleeping problems and starts to experience the ill effects of sleep deprivation.

The fast track lifestyle people live today has been responsible for most sleeping disorders. In the olden days people were most often content with what they had in life, especially those who lived in rural areas.

More and more people spend time out of their homes either working or socially. Others may stay at home but they still spend more time working and less time sleeping. People believe that spending less time sleeping will make them more productive and richer. This perception should be corrected.

People who sleep less are prone to sleep deprivation problems or sleep disorders like insomnia. A person who lacks sleep will experience tiredness during the next day. A sleep-deprived person will be more irritable and will have more trouble doing his work correctly. A person who stretches his waking hours to do more work will end up becoming less efficient and less productive.





As we mentioned earlier, statistics show that a large number of automobile accidents in the United States are caused by sleepy drivers. This fact points out the most dangerous effects of sleep deprivation. A driver who lacks sleep will most probably have less concentration on his driving and may cause harm not only to him but also to other pedestrians and drivers.

People who can't sleep may suffer from a malady called insomnia. Most people who have insomnia, especially the severe cases, should see their doctors as soon as possible to find treatment for their illness. The sad fact is most insomniacs do not acknowledge their illness and are not even aware that they are sick. Some people who have trouble sleeping may already have psychological illnesses which should require immediate attention.

There are critical disadvantages posed by lack of sleep and awareness of this and other sleep-related facts can only be made known through research. The billions of dollars spent on sleep research is not a waste of time and money at all.

Scientists believe that there is no standard number of hours for sleep because there are people who wake up well rested after seven to nine hours of sleep. However, there are also people who feel refreshed even only after four hours of sleep every night. Scientists report that it is not a matter of how many hours a person sleeps but the quality of his sleep and the regularity of his sleeping habits that are important. There are, however, schools of thought who believe that getting less than six hours of sleep a night will have serious effects to a person's health.

Research shows that people who are deprived of sleep for a long period of



time may be more stressed and are prone to illogical behavior. There are even studies linking criminal behavior to stress caused by lack of sleep.

Medical data shows that a body requires sleep to be able to perform normal functions. A person's body is able to regenerate certain body chemicals while sleeping. Failure to do so may affect the development of these hormones and may cause physical and physiological problems.

There are even studies which show that people who have enough sleep do well in examinations. The same study shows that people who have been sleep deprived have no activity in their temporal lobes, a part of the brain identified with language processing. While sleep deprived people do well on other tests, the study concludes that people who have had enough sleep perform much better than people who have been sleep deprived.

People who lack sleep are slow to make decisions and are prone to making hurried and illogical decisions. Sleep deprivation also results in poor concentration and memory.

While there are varying conclusions on sleep-related research, these researchers are one in saying that sleep is necessary for a better physiological and physical make up. Sleeping enhances the productions of proteins which are used by a person's body to regenerate brain neurons. A person with more brain neurons is more capable of learning and digesting new information.

One very important research finding is that lack of sleep can ultimately lead to death. Failure to provide the body with the proper chemicals will result in the weakening of a person's immune system.



No matter how sleep related research is interpreted, logic will show that sleep deprivation will ultimately result in a weakened person, both psychologically and physiologically.



## **What is REM (and is it important)**

What is REM (and is it important)

Sleep is an ordinary part of living and people go to sleep every day. This is perhaps the reason why people take sleeping for granted. When people are asleep, does it follow that all their body parts are also asleep or are there some body parts, especially the brain, that remains awake?

Simply said, does the brain cease to function when a person falls asleep? Is REM or rapid eye movement connected in any way to brain activity even while a person is asleep?

People who have normal sleeping habits usually undergo five stages of sleep. The lightest quality of sleep is in the first stage. Most people spend more time in the second stage while stages four and five are considered that stage when the person is already in deep slumber. Children usually experience wetting their beds and sleepwalking during these periods. REM sleep is known as the fifth or the last stage of sleep and it is characterized by rapid eye movement.

Rapid eye movement is associated with a physiological condition which is said to occur when a person is asleep. This physiological condition, said to occur every ninety minutes of sleep time, is characterized by rapid eye movement, rising heart rate, and heavy breathing.

There are scientists who believe that dreaming and rapid eye movement are related. Dreams are actually proof that a person's brain is active even during sleeping time. Scientists explained that dreams are images that are influenced



and sent by brain signals.

The condition called REM sleep is actually triggered by the emission of brain chemicals identified as acetylcholine. While REM sleep is switched on by acetylcholine, it is switched off by brain neurotransmitters known as serotonin and noradrenalin.

The scientific explanation that dreams or REM sleep is triggered by acetylcholine and is switched off by other brain chemicals proves an earlier theory by Freud wrong, that dreams are not useless images but they have meaning. Some scientists believed that dreams are merely products of brain processes.

Which part of a person's brain is responsible for dreams?

The frontal lobes are said to be responsible for dreaming while the forebrain provides the motivation which triggers dreaming. This was proven by a scientific experiment which intentionally damaged the pathway to the front lobes and the forebrain. The said damage to these brain parts resulted in the termination of dreaming.

This method of introducing damage to these areas is being used by doctors in treating schizophrenic patients. By damaging the pathway to these areas, the doctors lessened and eventually stopped the dreaming episodes of schizophrenics.

Scientists believe that REM sleep or this state of rapid eye movement while sleeping stimulates dreaming. However, not all dreams are triggered by REM sleep as evidenced by dreams and seizures that occur while sleeping in the morning.



While dreams do remain active during sleep time, there are some brain parts that remain active only when a person is awake. This part of the brain, known as the dorsolateral frontal convexity or that part of the brain located in between the frontal and back brain parts is idle during sleep time.

### Importance of the discovery of REM sleep

That period when there is rapid eye movement is the most dynamic stage of sleep. However, the entire body is not moving during the REM period when dream occurs. During the REM sleep, a person's brain is awake and active, the same way when a person is fully awake.

Some dreams are violent and the problem occurs when the person starts to act out his dream, causing REM sleep disorder. Some people who wake up after a violent dream can remember the images of their dreams but most could no longer remember what they did physically in their dreams. This explains cases where sleeping people strangle their sleep companions but in their dreams, they are actually saving the other person perhaps from drowning.

Most people do not have physical control over their actions while dreaming. While some people correlate dreams to their personal lives, most dreams and what occurs in it, are not related to a person's daily life activities.

The discovery of this state of REM sleep proved that a person's brain is functioning even while the person is asleep. It shows that the brain does not lie idle but remains awake and active even during sleep time.



## **Are Dreams Important?**

Are Dreams Important?

You finally fulfilled your dream of going to the Bahamas, taking your time watching the sea and reading your favorite paperback while sipping piña colada. You turn to the next chapter of the book you are reading but you notice that dark clouds are on their way to ruining a good day at the beach. Suddenly, the rain poured and you find yourself running as fast as you can. Fortunately or unfortunately, this was all just a dream and you woke up just in time.

Dreams make sleeping time exciting especially when people get to fulfill their innermost wishes through their dreams. However, dreams are sometimes frightening especially when they become violent and are no longer worth dreaming about.

Again, research has shown that dreams rarely portray the daily happenings in a person's life. Scientists believe that dreams are a product of brain chemicals that can switch on dreams during the REM sleep or rapid eye movement stage. Dreams can also be switched off by the proper brain chemicals. If this is true then can dreams be just an insignificant series of scattered thoughts and images?

Dreams are as old as history with the earliest reported dream dating back to 1800 BC. People's account of their dreams has been documented in numerous medium and most notably in books like the Old Testament, showing how important they are.

Religions like Christianity consider dreams as significant because they look



at dreams as manifestations of God's revelations. However the heads of Christianity acknowledge the fact that God does not reveal himself in dreams so Christians were to take the stand that dreams do not show God's messages and are best left ignored.

However, the writings of psychologists like Sigmund Freud and Carl Jung are beginning to catch the interest of most people who have started to become interested in dreams.

Man's concept of dream has turned full circle, from the time when dreams were believed to be special messages from a higher being to the time when dreams were considered insignificant and were treated as nothing but images. Today, a growing awareness of the works of psychologists are making people more interested in dreams and what they have to offer mankind.

Jung's work espouses the belief that the unconscious self holds information that is revealed only to the person through dreams. Jung believed that dreams make up for the things or actions that cannot be done by the conscious self. Freud's theory is focused on the function of dreams in connection with a person's mechanical functions.

Dreams are sometimes used to cure physiological and psychological illnesses. Psychiatrists make use of a person's dreams to study his fears and his anxieties. There are studies which show that dreams are nothing but a normal part of sleeping, especially during REM sleep. However, there are new schools of thought suggesting that dreams do occur even outside of the non-REM sleep.

As discussed before, sleep is divided into five stages, the first being the lightest





stage where a person becomes drowsy. The fifth stage is called the REM stage or the so-called dreaming stage because most dreams occur during this period. However, latest findings will show that REM sleep is not exactly the same with dreaming.

So are dreams important? Most researchers argue that dreams are not important because most dreams are easily forgotten. People who can even remember their dreams are not better off than those who cannot remember their dreams.

While researchers agree that dreams are not really that important, they are one in saying that dreams are not meaningless. Dreams are images and a reflection of the contents of a person's mind. And while dreams were considered scientifically meaningless, people have developed a sense for their dreams.

Most people get threatened by their dreams but scientists advise that if people cannot find a good use or a good meaning to their dreams, then they should forget their dreams. If your dreams bring out negative emotions in you then do not try to recall them but instead forget them as they are useless.

Only harness your dreams when they can make positive changes in your lives and if they can encourage you to do great things and become more productive. The rule is that if your dreams encourage intellectual or artistic stimulation keep them. Otherwise, forget them.



## **What is Circadian Rhythm?**

What is Circadian Rhythm?

Most human beings believe that a person's body is guided by a set of hours that guides him making his daily schedule. However, scientific studies have shown that the human body is primarily guided by its normal rhythms otherwise known as the circadian rhythm.

A person's circadian rhythm is apparently regulated by his brain through the suprachiasmatic nucleus. This brain matter controls the release of nerve cells that controls a person's circadian rhythm. This rhythm influences the body's condition in terms of its temperature, blood pressure, and even hormones. Knowing one's circadian rhythm can help a person plan his activities for the day.

The brain follows external factors before it signals the body to do specific functions. When the brain detects a fading of lights it automatically releases a signal which switches off the body's active functions and sleep is induced. Daylight is another factor which signals the brain to allow the body to do its normal functions like waking up and working and even eating.

This may explain why people unknowingly experience the desire to eat during their regular meal times even if they are not that hungry. It is all a part of his circadian rhythm.

A study of the circadian rhythm revealed how a person's daily activities are controlled by his rhythms. Take for example the sleeping and waking up routines. The body's rhythm influence a lowering of the body temperature and



this induces sleep. On the other hand, a person will most likely become wide awake when his body temperature increases especially in the morning.

Have you noticed how older people have different sleeping and waking patterns? As people grow older, that part of their brain which controls the circadian rhythm experiences cell damage. With this, the circadian rhythm also changes resulting to changes like the need to take more naps and to wake up early.

An inactive person will definitely have a lower temperature, making him feel drowsy most of the time. In the same manner, an active person will have a higher body temperature which will encourage him to engage in numerous activities.

The entire body of a human being is actually influenced by his circadian rhythm. Even the production of various hormones which affect body functions is influenced by the circadian rhythm. One such hormone known as cortisol affects many body functions like metabolism. Cortisol level in the body is highest in the morning and recedes during the day. A change in a person's sleeping habits will also change the peak levels of cortisol in his body.

Knowledge of how the body works can help a person regulate his schedule and even protect his health. Morning activities should be thoroughly checked and regulated especially for those who have high blood pressure and heart diseases because this is the time of the day when the cardiovascular system experiences changes and problems. Blood clots and blood pressure rise easily during mornings.

There is also reason to believe that strenuous and vigorous work should be scheduled shortly later in the day because it is that time when the body



temperature is at its highest and the body stronger. Those undergoing operations or other painful procedures should schedule it in the afternoon because it is the period when your body can take more pain. Following this principle, doctors are also coming to the conclusion that there is less need for anesthesia in the later part of the day.

However, it is advisable to always stick to a regular sleeping schedule to avoid disruption of your circadian rhythm. While humans may be able to control their circadian rhythm through light and darkness, an erratic schedule may cause havoc in your circadian rhythm causing the body to malfunction.

Notice how people who have sleep disorders are more intolerant of others, irritable and depressed. People who have sleeping problems or disorders are also more prone to memory loss and have trouble with concentration. Changes in a person's sleeping habits may come as a shock to his circadian rhythm as it may not be prepared for such deviations. This happens when a person travels through different time zones. Observe how people who travel through different time zones appear disoriented when they arrive. Hence, the term "jet lag."

The circadian rhythm is also referred to as a person's biological clock. While a person's biological clock is often referred to by people when talking to women who have not yet gotten pregnant, there may be a hint of truth to what they are saying. Could it be that a person's body is subjected to a tight schedule and does this explain forty-something women having more trouble with pregnancy and giving birth?

There is more to be gained in knowing one's circadian rhythm. For one, knowing your body rhythms will help you keep your health and your sanity in check.



## **What is Insomnia**

What is Insomnia?

Any person who tumbles and turns at night no matter how he tries to get some sleep will surely be grumpy, unfocused and disorderly the next morning. Poor sleeping habits can lead to mood swings, fatigue and a diminished attention span.

People who regularly have a hard time getting some sleep no matter what they do have a sleeping illness called insomnia. People who have insomnia may feel tired even as they wake up in the morning and have trouble concentrating on tasks.

Thirty percent of a person's life is spent sleeping. Sleep has become a regular part of a person's being that he tends to take sleep for granted. A person will only realize the value of a good sleep when he is already suffering from a malady called insomnia.

A good sleeping habit is important because it enables a person's brain and body to function normally. Lack of proper sleep can thus create abnormalities in how a person functions. People generally require sleep during mid day and during night time.

Each person requires a different length of sleep to continue their normal functions the next day. However, most people may require at least seven hours of sleep every night. There are people who can still function normally the next day even if they normally only get four hours of sleep.



A person's body automatically recognizes the time to sleep because it considers lesser amounts of light as a signal to the brain to produce melatonin, a chemical that causes sleepiness. During this time, the three major chemicals that keeps the body alert, including serotonin is automatically deactivated.

Insomnia is generally known as a sleeping disorder but it can be grouped into three types. Mild insomnia is a sleep disorder that lasts for a few days only and does not result in any defect in a person's regular functions. The more severe type or short term insomnia can last for weeks and can result in feelings of fatigue and irritability. Chronic insomnia can last for months and can severely affect a person's normal functions.

The mild form of insomnia may be normal and not debilitating. However, longer periods of insomnia can have serious effects on a person's physical and psychological make up.

Insomnia can result in poor concentration and focus and can make a person more prone to accidents. This sleep disorder can also result in a poor social life and failed relationships because insomniacs are easily stressed out, generally depressed and have little patience. Sleep disorders can also result in heart illnesses and sever headaches during the day.

When should you ask for help for if you have insomnia?

Moderate insomnia may just be a result of too much thinking or pressure in your work or personal life. However, when your insomnia attacks become longer and affect your normal functions to the point of keeping you depressed and irritable then perhaps it is time to seek help from a professional.



Most insomniacs do not seek the advice of specialists even if they have already lost remarkable weight and are losing control of their lives because they think it is normal phase. However, insomnia is different from sleep deficiency, a condition where a person can get some sleep but feels he does not get enough of it.

Insomnia is a common occurrence with almost thirty percent of adults experiencing insomnia every year. However, only five percent of these people get medical advice. This is a sad fact considering that four out of ten people who have insomnia are also prone to psychiatric disorders. Another glaring fact is that seven out of ten depressed people have insomnia.

Research shows that while insomnia is generally caused by pressure and anxiety, it may also be caused by increasing use of cocaine, alcohol and sedatives. Normal problems like unemployment, relationship problems, and other daily activities are also said to cause insomnia.



## **Do You Need a Sleep Test?**

### About Sleep Tests

#### The Necessity of a Sleep Test

There are a lot of people who do not really know how important sleep tests are when in fact; there are lots of sleeping disorders that can affect our health and general condition. And the thing is that these sleeping disorders cannot be cured if they are not diagnosed properly.

Some people do not even know that they have sleeping disorders, or if they are feeling something strange, they just opt to ignore it. But with all the possible complications of these sleeping disorders, one thing is for sure: they must not be ignored.

Sleep tests give you and your physician a general overview of what is happening in your body as you sleep. The observations gathered can pinpoint the cause of your sleeping problems. Also, in this manner, some problems regarding sleep cycles can be determined.

Some of these sleeping problems are:

- Sleep Apnea

During sleep, some people experience a sudden stop of the breathing process for ten seconds or so. This may be caused by narrowing of the airways, or the communication process between the respiratory muscles and the brain.





This condition may be tolerable to others for as long as they can bear the noise, but this condition is life-threatening. Sleep apnea can cause more health complications, and may lead to accidents due to daytime sleepiness that it can cause. More so, heart problems can also arise from sleep apnea.

- Narcolepsy

Narcolepsy is a chronic disorder that targets the brain, causing excessive daytime sleepiness, sleep paralysis (inability to move and talk during sleep transitions), hypnagogic hallucinations (seeing dream-like situations during sleep transitions) and cataplexy (muscle tone loss).

- Sleepwalking and night terrors

When the normal cycle of sleeping is disturbed, especially during Non-REM sleep, sleepwalking and night terrors are likely to occur.

- Insomnias and Periodic Limb Movement disorder

Insomnia and Periodic Limb Movement disorder are related since the latter can cause difficulty in trying to obtain deep sleep.

Insomnia can be classified into initial insomnia (difficulty to catch sleep for 30 minutes), middle insomnia (difficulty to maintain sleep) and terminal insomnia (waking up after getting less than 6 hours of sleep).

This can be caused by a lot of factors to be determined by your physician or sleep therapist.



- Hypopnea

This refers to a sudden decrease in breathing rate while sleeping.

### Preparing for the Sleep Test

Before undergoing any sleep test, these steps must be followed:

1. Keep a sleep diary two weeks prior to scheduled sleep test.
2. Follow normal sleeping habits during this period.
3. Inform the physician of medications that you are taking.
4. Stop taking sedatives before the sleep test.
5. Caffeine must be taken out of the diet three days before the sleep test.
6. Fill out the information form asking for help from your sleeping companion. He or she knows a lot about your sleeping habits.
7. Avoid using gels, perfumes, oils, fake fingernails, polish and the likes on the day of the sleep test since electrodes will be attached to your body parts.
8. Be hours early for your sleep test.

### Types of sleep tests

#### 1. Polysomnograph Studies

In this type of sleep test, electrodes (small metal discs) are connected to certain body parts to monitor:

- Eye movement
- Brain's activity
- Heart rate



- Oxygen and carbon dioxide levels in the blood
- snoring
- Body movements
- Air intake
- Muscle contractions
- Breathing rate

Amidst the electrodes that are connected to the body, the test is designed to be comfortable enough so as not to disturb sleeping. At least 6 hours of sleep is needed to get the results.

## 2. Multiple Sleep Latency Test

This test will use the same equipment used in polysomnograph test. These two tests will vary in the time required to get the results needed.

In Multiple Sleep Latency Test, patients are asked to take naps every two hours after the nocturnal sleep. The first twenty minutes are allotted for the patient to fall asleep. They are asked to wake up after 15 minutes. Then they are prohibited from sleeping until the next time schedule for napping.

## 3. Multiple Wake Test

Using the same equipment in the polysomnograph test, the patient is asked to stay awake without napping during the daytime.

Sleep disorders must be prevented. They must be treated if you already have them. And that first step in doing it is to undergo sleep test. The time is now.



## **How Light Affects Sleep**

### How Light Affects Sleep

Sleeping with the light on can impair a person's body clock. Research has shown that the body clock is negatively affected even if the person continues to doze off. The research into the effect of light on sleep can help foster new treatments for various sleep disorders.

Being exposed to light at nighttime can trigger a chemical process that can operate as a neural switch that can switch the sleep/wake cycle on and off. By nature, the sleep/wake cycle is run by the pineal gland. The pineal gland, located in the brain, secretes melatonin. The production of melatonin is at its peak when a person sleeps.

An enzyme called AA-NAT or N-acetyltransferase is involved in the production of melatonin. This particular biochemical machine can cause the production of melatonin to turn on and off. High levels of the AA-NAT enzyme can produce high levels of melatonin to induce sleep. In general, the pineal gland shields the AA-NAT enzyme from being destroyed by proteasomes or barrel-shaped cell structures.

Turning on a bedside lamp at nighttime can block the stimulation of the pineal gland causing the AA-NAT protein to be destroyed by the proteasomes. This results in a continuous drop in the level of melatonin secretion. Exposure to light can help control the production of melatonin.

Melatonin is linked directly to the sleep/wake clock of the mind. Light therapy can be used to effectively regulate the levels of melatonin secreted by the pineal



gland. This type of treatment can be used for treating sleeping conditions like insomnia or jet lag.

### Light Benefits Sleep

Getting the right amount of sleep daily can help keep the body's health at its peak. Unfortunately outside factors can easily disturb the body's natural body clock and cause it to miss out on some much-needed sleep. Most people are not aware of the fact that using incandescent light bulbs can cause disruptions in a person's sleeping cycle. Continuous exposure to incandescent light bulbs can cause a person to feel that their days are longer.

Incandescent lighting and even fluorescent lighting can deprive the body of the natural sunlight it needs. Regardless of warnings on the subject of contact with direct sunlight the body needs at least an hour of natural sunlight a day to stay healthy.

### Lighting Products for Better Sleep

Fortunately, people can now purchase lighting products that mimic the effect of the sun's natural light on the body. Full-spectrum lighting products are a great way to inject some light into the body without worrying about skin cancer. Full spectrum lighting can help bring about a healthy night's sleep.

Machines like the full-spectrum lights and sun alarms can help regulate a person's sleeping cycle. Research has shown that exposure to varying degrees of light can trigger the body to turn out hormones that will cause a person to feel sleepy or wake up. A sun alarm can be used to awaken a person from sleep by imitating first light at dawn. The eyes are highly sensitive to any amount of



light particularly in the morning after a night of sleep.

The light emitted by a sun alarm sends a signal to the brain that in turn causes the pineal gland to secrete serotonin. This hormone causes the body's natural instinct to wake up at the sight of light. In contrast, the pineal gland also secretes the hormone called melatonin. These hormones cause the body to feel sleepy due to the lack of sunlight exposure.

A sun alarm is also a better alternative to the traditional objects used to wake up a person from sleep. In most cases, people use loud alarm clocks that buzz or ring incessantly without successfully waking up the person. The noise generated by the alarm clock simply adds to the stress that an individual faces daily.

A sun alarm is a gentle way to wake up each day without the clatter of an alarm clock. It works in accordance with the body's natural instinct to get up with the sunlight. Too much noise in the morning can easily jolt the body's mechanisms causing it to be strained throughout the day.

The sun alarm can also be used to simulate sunsets. This is a great way to fall asleep as the body is slowly lulled into the night as opposed to tossing and turning in bed.



## **How Serious is Persistent Insomnia**

How serious is persistent insomnia

Persistent insomnia is a serious sleep disorder that affects millions of people in the United States. Persistent insomnia, which is sometimes called chronic insomnia, is characterized by the inability to sleep that often persists for several nights. This type of sleep disorder can even last for up to months depending on the gravity of the problem.

Persistent insomnia is often caused by a number of factors although most experts hold worrying as the culprit responsible. However not all experts believe that psychological factors are the root of persistent insomnia. In some cases, persistent insomnia can even be a result of some type of physical problem.

Certain physiological factors have been found to cause persistent insomnia in some patients that participated in a study conducted by the Association of Sleep Disorders in the United States. An individual with physical disorders such as abnormal muscle activity or breathing problems often experience sleep disorders that can be as serious as persistent insomnia.

Persistent insomnia can also be attributed to two well-known psychological factors namely depression and stress. Research has also shown that more women are at risk of experiencing persistent insomnia due to biological factors such as menopause. Other factors that can cause persistent insomnia can also be caused by an unhealthy lifestyle with too much caffeine, nicotine or alcohol as well as late night snacks.



Dependence on prescription drugs such as anti-depressants can also lead to sleep disorders. Several environmental factors can also lead to persistent insomnia like excessive light or noise, working the night shift, and jet lag. Sleeping on an uncomfortable bed can also lead to persistent insomnia.

### Easy Techniques to Ease Persistent Insomnia

Despite being a serious sleep disorder, people suffering from persistent insomnia need not worry, as there are natural remedies that can be employed to help ease the problem. The most logical solution would be to refrain from taking naps during the day. Too much sleep during the day will make it harder to sleep at night.

Yoga is a great exercise that can help a patient suffering persistent insomnia loosen up and focus. Yoga is a unique form of relaxation technique that can teach a person to meditate and visualize away their worries. Reducing stress will help decrease stress hormones.

Other than yoga, insomniacs can also engage in physically energizing workouts to raise adrenaline levels and increase the body's core temperature. Exercise such as this is best done in the afternoon or even in the early evening as the hormone levels go down five to six hours after exercise can help promote deep sleep. Avoid exercising right before bedtime, as the body will be too stimulated to fall asleep.

Pass up a heavy meal at least four hours before hitting the sheets. Going to bed on a full stomach will make it harder to sleep, as the tummy feels bloated; however drinking a glass of warm milk before bedtime can help promote sleep as it contains tryptophan.





Aside from milk, other protein-rich foods like nuts, tuna, dates, and even potatoes can help promote sleep. These foods contain tryptophan, which is a chemical that sends a message to the brain that initiates the release of the hormone serotonin to help a person relax.

Alternative remedies such, as acupuncture may be a solution to persistent insomnia. This ancient Chinese remedy is known to be quite effective in treating a variety of sicknesses and is a dependable alternative to taking prescription drugs that at times can be addictive.

Vitamin and mineral supplements can also be taken to treat persistent insomnia. These may include calcium, zinc, and magnesium. Other types of supplements that can be taken to pacify the nervous system would be vitamins B3, B6, and C.

The overall ambience of the bedroom can cause a person to lose sleep. In some cases, loud wall colors or uncomfortable beddings, curtains or carpets with frenzied patterns can keep a person awake all night. It helps to have bedroom walls painted in soft pastel colors that are calming to look at.

Severe chronic insomnia will require professional assistance and a lot of patience on the part of the patient. It is also a good idea to start a sleep diary wherein the patient can write down their observations in order to identify any pattern that could have led to the sleeping disorder.



## **What Are Snoring and Sleep Apnea**

What are snoring and sleep apnea?

Most people often confuse snoring and sleep apnea to be the same thing. Although snoring and sleep apnea are categorized as sleep disordered breathing, snoring is not as serious as sleep apnea. Despite the loud noise that is often associated with snoring, a person who snores is not in any major health risk, as the upper airway is not completely blocked.

### **The Facts about Snoring**

Snoring is a natural incidence that affects a lot of people. In normal circumstances, air passes from the nose and the throat to the lungs quietly and unobstructed. Unfortunately this is not typical for most people as a blocked nose can cause snoring.

In some cases, the base of the tongue can restrict a person's breathing during sleep. The throat or the soft tissue in the upper palate can sometimes get in the way and start to vibrate as air passes through.

### **How to Stop Snoring**

There is no specific cure to stop snoring. However there are quite a number of possible solutions that can help relieve the problem to a certain degree. But with a little luck, a person may be able to find a suitable cure that can ease their snoring woes.



An unhealthy lifestyle can cause snoring. Too much alcohol, overeating, caffeine, smoking, and lack of exercise can bring about snoring during sleep. Making small lifestyle changes can help ease snoring.

The way a person sleeps can also lead to snoring. In most cases, sleeping on the back can cause a person to snore loudly. There are a variety of devices such as orthopedic beds and pillows to help a person get a good night's sleep.

Taking medication or some form of drug may help relieve snoring. A number of homeopathic remedies sold in health food stores and on the Internet are touted as effective for lessening snoring. Other alternative remedies for snoring include aromatherapy and hypnosis.

Throat sprays and nasal dilation strips can also help lessen snoring. Throat sprays can be used to lubricate the soft tissues surrounding the throat. The oil of the throat spray will help air pass freely over the throat and reduce vibration. A nasal dilation strip can be positioned at the nostrils to keep them open.

Surgery is also an option in severe cases of snoring. The procedure known as uvulopalatoplasty can reduce the size of the throat tissue and palate. In some cases, the palate and throat tissue can even be removed to help the patient breathe easier and reduce snoring.

### The Truth about Sleep Apnea

Sleep apnea is a common problem among millions of Americans. The term 'apnea' is a Greek word that implies 'without breath'. Patients that experience sleep apnea may stop breathing frequently while they sleep. In severe cases of



sleep apnea, a person may even stop breathing for more than a minute.

There are three kinds of sleep apnea: mixed, central, and obstructive, which is commonly experienced by many people. Obstructive sleep apnea occurs when the soft tissue at the back of the throat blocks the airway. This occurs when the soft tissue caves in and closes while sleeping.

Central sleep apnea occurs when the brain breaks down and is unable to send a message to the muscles to inhale and exhale. Mixed apnea is a combination of obstructive and central sleep apnea. In all cases of sleep apnea, the brain is able to rouse the person from sleep but only for a short time to let them continue breathing. Unfortunately this results in a poor quality of sleep that can affect the person's overall physical condition.

Sleep apnea is a condition commonly related to men over the age of forty. However, sleep apnea has also been known to affect women and even children. Another common factor that can lead to sleep apnea is excess weight. Unfortunately the lack of understanding about the sleep apnea results in the lack of proper treatment administered to long-time sufferers of the disorder. Left untreated, sleep apnea can lead to headaches, impotency, memory problems, cardiovascular diseases, and high blood pressure.

### Seeking Medical Help for Snoring and Sleep Apnea

It is a good idea to seek medical assistance for snoring and sleep apnea. A dentist can accurately analyze a person's symptoms to identify the condition and at best refer the patient to a specialist.

In some cases, the dentist can pass on his or her diagnosis of the patient



suffering from sleep apnea or snoring to a sleep specialist or doctor who will administer an overnight sleep study. The study will measure the person's heart rate and calculate the number of times the patient stops breathing.



## **Your Infant and Sleep (Beware of SIDS)**

Tips to avoid SIDS

Babies' Sleeping Tips to Avoid SIDS

In the United States, there are 2,500 families that weep every year after the parents find their sleeping babies dead. The pain and the trauma are just too heavy to bear, and it may take a lifetime to recover. The culprit to be blamed for these situations is the Sudden Infant Death Syndrome (SIDS).

Sudden Infant Death Syndrome usually kills babies less than a year old. The death remains to be unexplained amidst clinical history checks, autopsy findings and thorough investigation. The baby is usually found dead while sleeping, and does not seem to have suffered.

There are some factors that are associated to the occurrence of SIDS. These include:

- Prenatal complications
- Mother's abuse of drugs such as heroin during pregnancy
- Exposure to smoke
- Inadequate care and nutrition during pregnancy
- Teenage pregnancy
- Heatstroke due to excessive clothing.
- Soft sleeping surfaces
- Gender (61 % of SIDS victims are males)
- Age (babies within 2-4 months old are more prone)



- Weight (underweight babies are more prone to die of SIDS)

Nevertheless, concerned organizations like the American Sudden Infant Death Syndrome Institute made it possible to lessen the impact of SIDS in the society. In fact, there has been 50 percent decrease of infant deaths that can be associated to SIDS from 1985 to present.

With these in mind, it is safe to conclude that SIDS can be avoided if parents are well-informed and are well-prepared when faced or are at risk with this infant menace. And even simple sleeping habits can help in minimizing unexpected infant deaths.

Here are some things to know and tips to follow to keep your babies safe from SIDS.

1. Keep your baby in a safe sleeping position.

Most parents allow their children to sleep on their stomachs because their children sleep more soundly in that manner. However, in this case, safety of the baby is compromised.

It is safer for babies to lie on their backs than on the sides or stomach when they sleep. They have more chances to wake themselves or others especially during sleep apnea (or when breathing is held). There will also be fewer chances for babies to inhale what they have just exhaled or your babies suffocating. The risk of SIDS is minimized this way.



2. Use firm and sturdy mattresses
3. Extra support on the bedding of your child minimizes the risk of suffocation since the child cannot turn their bodies to sleep on their stomachs.

Also, the use of sleep sacks is becoming more popular in preventing SIDS. This prevents the baby from turning from back to front when they are sleeping. It also functions as a blanket to keep your baby warm. The use of loose blankets may cause babies to suffocate the instance they cover the face.

3. Keep excess things away from the baby's beddings.

When a baby moves while he is sleeping, there can be no way in telling where his face would land. That means that if there are lots of things in his bed, it is possible that these things will come in contact to his face, cover it, and suffocate him.

4. Keep close watch on your baby

There are instances when you have to leave your sleeping baby for a while. But you can still be assured of their safety when you use baby monitors.

As much as possible, never leave babies unattended, even when they are asleep. During early months, it is advisable to have someone close to the baby to check on them once in a while. You never know when emergencies will happen, and you do not want your baby to face it alone.

5. Co-sleep with infants but with caution





Keeping close to your baby does not mean that you have to sleep together on a couch or a bed. Studies show that parents who do this are putting their babies closer to SIDS.

If you really want to let your baby sleep in an adult bed with you, purchase accessories like bed top and bedside devices that will ensure the safety of your baby.

Fighting SIDS may not be easy, but it starts in that one step: securing your baby and his sleeping habits.



## **What is Narcolepsy and Is It Treatable**

### Definition and Treatment of Narcolepsy

#### Narcolepsy Facts and Treatment

Narcolepsy is prevalent in American society with 125,000 to 250,000 cases. However, because of lack of knowledge or denial on the part of the persons who have narcolepsy, approximately 50,000 are reported and diagnosed properly. That is a small number of diagnoses when compared to Parkinson's disease and multiple sclerosis which are of equal rate of presence (.03-0.09 percent of the population) as narcolepsy.

For people to become more aware of the seriousness of this case as well as proper treatment and diagnosis, here are some facts regarding narcolepsy.

#### Narcolepsy: Definition

Narcolepsy is a chronic disease that attacks the brain, the main organ in the central system. This disease manifests itself through the following symptoms:

- Excessive daytime sleepiness (EDS)

It has been observed that all persons who have narcolepsy suffer from Excessive daytime sleepiness. This situation can happen even during inappropriate situations, time and place.

Even if the person with narcolepsy got good night sleep previously, he feels tired



and lazy during the day. He feels that he has low energy and has a strong urge to doze off to sleep.

- Cataplexy

Sudden loss of muscle tone can be observed from narcolepsy patients. This is triggered by emotional actions such as laughter, fear, excitement and the likes.

Voluntary actions as well as body postures are affected during cataplexy attacks.

60 to 70 percent of narcolepsy patients have cataplexy.

- Hypnagogic Hallucinations

Narcolepsy patients also suffer from distorted perceptions or dream-like situations between sleeping and waking moments. 50% of narcolepsy patients have manifestations of hallucinations.

- Sleep paralysis

The ability of the patient to sleep and talk is lost during waking and sleeping transitions. 60% of narcolepsy patients experience sleep paralysis.

It has to be noted that the severity and combinations of these symptoms vary from case to case and may be accompanied by disturbing sleeping habits during nighttime as well as automatic sleeping behaviors.



## Narcolepsy Patients

Narcolepsy starts in the early adult stage (usually teen-age years) with the symptoms of excessive daytime sleepiness (EDS) manifesting first. Other symptoms show months after EDS. Both sexes are equally prone to this disease.

## Narcolepsy causes

New research shows that the causes of Narcolepsy can be attributed to the dysfunctions and abnormalities of the hypocretin system.

The hypocretin system is composed of:

- Hypocretin neurons found in the hypothalamus that secrete neurotransmitter substance;
- Hypocretin, the neurotransmitters that relays messages to other cells.

Such abnormalities that can cause narcolepsy are as follows:

- A drastic decrease in the number of hypocretin nerve cells in the brain
- Lack of hypocretin in the cerebrospinal fluid (the fluid surrounding the spinal cord and the brain)

The abnormalities of the said system may affect other neurotransmitter systems which in turn will cause excessive sleepiness during daytime as well as bad REM sleeping activities during nocturnal sleeps.

This phenomenon can be connected to former studies that points to the



autoimmune system as the cause of narcolepsy. Due to various factors (that are uncertain as well), the autoimmune system treats the brain cells as foreign entities, then eats up the brain cells, leading to decrease in hypocretin in the brain.

### Narcolepsy treatment

Narcolepsy can be treated in two ways: drug and non-drug methods.

#### -Medications

Medication therapy must be made to cater to fit the needs of the patients. Stimulants such as Amphetamines and Methamphetamines may be given to correct excessive daytime sleepiness. Depressants may be given to relax insomniac patients and prepare them to sleep during nighttime. Tricyclic antidepressants are given to control cataplexy. All these must correspond to the patient's activity and schedule. Because of the side effects of the drugs, physicians must be consulted before taking any of the said drugs.

#### Non-drug treatment

This therapy focuses on changing behaviors that can help you adapt to narcolepsy. Some approaches include:

- Education regarding narcolepsy to equip the patient and the family members to cope up with the frustration
- Adapting a schedule to follow in waking up and sleeping
- Exercise and exposure to sunlight for alertness
- Proper diet (avoidance of alcohol and large meals)



The prevalence of narcolepsy should not leave its victims hopeless. With proper knowledge, diagnosis and treatment of narcolepsy that can be adjusted to fit your lifestyle, you never have to worry about narcolepsy again.



## **How to Prevent Sleepwalking and Night Terrors**

Preventing Sleepwalking and night terrors

Facts and Tips in Preventing Sleepwalking and Night Terrors

Studies show that around 2.5 percent of the adult population sleepwalk, and in general, approximately 10% of the people will experience sleepwalking at least once in their lives.

Sleepwalking Definition

Sleepwalking, also called somnambulism, can be categorized into a group of sleeping disorders called partial-arousal parasomnias. Sleepwalking can also happen simultaneously with night terrors and happen during the NREM stage of sleeping.

Sleep Stages and cycles

To further understand sleepwalking, it will be helpful to review our previous discussion of the sleeping stages and cycles.

During normal sleeping, people experience several stages, from drowsiness to a deep sleep. During these stages, Rapid Eye Movement or REM sleep can occur. This kind of sleep allows dreaming.

Non- REM stages also occur, and if it happens in deep sleep stage (around stage 3 to 4), sleepwalking is possible to happen.



## Sleepwalking and Age

Children between the ages 6 to 12 experience sleepwalking more often than adults since deep Non-REM sleep happens more frequently to the former. As they grow older, the chances for sleepwalking diminish with time. However, if it starts in the adult stage, it is more likely to remain.

## Causes of Sleepwalking

To fully control and minimize the incidence of sleepwalking, it is advisable to know the causes or triggering factors of sleepwalking.

- Worries that disturb the sleeping cycle

The brain should be relaxed when the time for sleeping comes. If it fails to do so, the normal sleeping cycle cannot be achieved. The probability that a person will experience sleepwalking will be higher.

Thus, stress, fatigue, anxiety, and excess brain activities have a lot to do when you experience sleepwalking.

To children, aside from the frequency of Non-REM sleep in the cycle, prior sleep loss, anxiety and fatigue are common causes of sleepwalking.

- Digestion within sleeping period

Body activities such as digestion during night sleep makes it hard for the brain to relax.





- Mental and medical disorders

Other disorders in sleeping or mental disorders make it possible for persons to experience sleepwalking. Organic brain symptoms or REM behavior disorders are some of its examples.

Medical complications such as partial complex seizures also trigger sleepwalking.

- Substances

External factors such as drugs and alcohol can also be the cause of frequent sleepwalking.

Tips to prevent sleepwalking and night terrors

The best key to prevent sleepwalking is getting adequate and satisfying sleep.

1. Avoid eating meals three hours prior to sleeping.

This step will ensure that your brain and your digestive system will be relaxed during night sleep. Minimizing the activities of the body will make it easier for the body to sleep without disturbances.

2. Avoid substances.

Nicotine, alcohol and caffeine suppress normal sleeping habit because these substances have effects on the central system, more specifically, the brain. They tend to stimulate and excite the body, causing extra body activities to cope up with these substances.



3. Indulge in relaxing activities

One sure way of getting rid of sleepwalking and night terrors is to get rid of the troubles and stresses that bother you. By doing meditation exercises like yoga or by listening to soothing music, you channel negative thoughts away.

4. Exercise.

By utilizing your energy in exercising during the day, you will be less active during sleeping period. Also, the normal response of the body to a tired body is to sleep deeply, allowing rejuvenation.

5. Have a healthy sleeping habit.

By establishing a healthy sleeping habit, your body will be able to cope up with the stresses of daily life. Some of the sleeping habit that you need includes:

- Making your bedroom exclusively for sleeping. Working or studying on the bed must be prohibited.
- Making sure that you wake up and sleep on time.
- Avoiding naptime after mid afternoon.
- Establishing a cozy and relaxing room.

If all else fails, there are professionals that you can consult to help you prevent sleepwalking. Aside from that, you will also know if there are medical disorders that are connected to sleepwalking.

Sleepwalking can be prevented, if you are aware and knowledgeable enough.



## **Sleep and the Immune System**

### How the Immune System and Sleep Work Hand in Hand

When we fall ill, we are always advised to sleep, get a good night's rest, and stay at home – if possible, stay in bed. This might not be all too difficult: after all, we often feel weak when we are ill; and we often do want to sleep when we go down with infections, such as typhoid fever or the flu.

What is the reason for this ever-reliable exhortation of "Sleep and rest?" And why do we feel sleepy when we are sick? Is there a link between sleep and the immune system?

Before you can establish a connection between rest and recuperation, you have to know how the immune system works. When your body picks up a pathogen, such as a virus or a bacterium, your body sends out cells to recognize it. Once these cells find out what the invader is your body launches a defense response to kill the infection. This would entail you having to endure a fever, body pains, sometimes even vomiting or loose bowel movement as your immune system puts up a fight. If you get well, your immune system can create memory cells, which will protect you from future infections.

One such molecule that promotes destruction of invaders is called interleukin-1, or IL-1. IL-1 encourages special blood cells called B lymphocytes to produce antibodies, which lead to viral destruction. IL-1 also allows T lymphocytes, another type of immune system cell, to attack bacteria.

IL-1, by the way, is produced at its greatest in the presence of a protein called



di-muramyl peptide. This peptide, in turn, is produced by bacteria in the body, especially when you are sleep-deprived. That is, if you do not sleep, you become more susceptible to sickness, which stimulates your immune system, which, thanks to the sedative effects of IL-1, makes you sleepy.

In other words, the immune system works to make you sleep; and sleep allows your immune system to work.

All this, researchers found by studying laboratory animals, as well as people in experiencing Rapid Eye Movement (REM) sleep, loosely defined as “deep sleep.” It is non-REM sleep that stimulates the immune system, but researchers found that to keep at the top of the game, humans must have as much REM sleep as possible.

Now why is this so? Studies have found that REM sleep allows a complete “battery recharge” in the body, allowing memories to become permanent in the brain, and allowing the immune system to repair any damages done to cells and organs.

This is most evident if you have experienced deep sleep: you wake up with a sense of clarity, and feel rested. REM does more than memory plastering: one minute of REM is equal to five of non-REM sleep, so that sometimes, you can feel rested after a good nap, but still feel fatigued despite having shallow sleep all night.

What other benefits does sleep carry?

- If you are a teenager and still going through your growth phase, then you need a lot of sleep. This is because the pituitary gland churns out growth



hormones during sleep; leave off those few hours in dreamland, and you could put your height behind you.

- As evidenced by cranky co-workers, sleep keeps you on your toes and still keeps a smile upon your face. Studies show that people who sleep at least seven hours a night not only perform better at work, but feel better about themselves and consequently are less hostile to their co-workers.
- Recent research has also shown that people who do not experience frequent REM sleep, or those who do not sleep more than seven hours a night, have impaired motor functions and balance. You may notice this after pulling an all-nighter: you have a hard time walking straight, and you may sometimes be clumsy.
- Lack of sleep, on the whole, impairs memory, vision, and even the ability to make wise judgment.
- People who have less sleep are more likely to experience anxiety and depression, which, in turn, impair the immune system's ability to heal illness.

In short, sleep may seem like a waste of a precious few hours, but if it means giving you a longer life, then you should have as much deep sleep as you possibly can. So get that immune system stimulated, have a few winks, and say hello to good health!



## **What Is Lucid Dreaming**

Clear as Day: All about Lucid Dreaming

Have you ever experienced a dream whose results you could determine, and where you could do anything at will? Then perhaps you were able to have a "lucid dream," which occurs when you know that you are dreaming, and can thus manipulate your dream to suit your needs.

Lucid dreaming is a common phenomenon which has been used as the theme of movies and books, and which is the focus of interest of psychologists, New Age groups, and artists alike. Because they often feel real, lucid dreams can often be more memorable than any other kind of dream. Even the pain of nightmares can be offset by lucid dreaming, which is why some psychologists recommend that their patients intentionally have lucid dreams, so that the patients can rid themselves of any torment or inner strife that may impair them in the daytime. Although lucid dreaming is relatively rare, it can be achieved with different techniques, and this means you are no different. Before lucid dreaming can be done, however, you have to recognize that you are dreaming. You can do this by looking for "dream signs," which can be identified by performing the following "reality tests."

- If you are confronted with text or a clock in a dream, read the text or the time, look away, and then look at the text or time again. In the real world, text and time will not change; in the dream world, however, text and time will alter drastically.
- Switch on electronic objects, or look at reflective objects. Electronic



switches such as light switches will not usually work in the dream world. Mirrors will be blurred, or will show distorted images.

- Try to inflict pain on yourself, or keep yourself from breathing. If you feel your chest tighten, or if you feel little or no resistance or pain on your skin, then you may be in a dream state.
- Observe your environment: do you see talking animals? Are there purple dogs and green horses? Do buildings suddenly get up and dance? You may be dreaming.

Not everyone can have lucid dreams. There are many factors that affect such ability, including meditation and age. If you do wish to have lucid dreams, and you can recognize that you are in the dream state, then you can get started with any of the following techniques.

- In Mnemonic Induction of Lucid Dreaming (MILD), all you need to do is to prepare yourself mentally for lucid dreaming. While you fall asleep, remind yourself, over and over, to watch out for dream signs, and to know that you are dreaming.
- The easiest way to start lucid dreaming is the Wake-back-to-bed Induction Technique (WBTB). This exploits the Rapid Eye Movement (REM) cycles, which indicate deep sleep and lucid dreaming, and which get longer in the latter parts of the night. To employ WBTB, go to sleep tired, then wake up in five hours' time. As soon as you are awake, direct all your thoughts on the will to make yourself have lucid dreams while keeping yourself awake for an hour. When you are finished with the hour of focus, go back to sleep. Not only may you have lucid dreams, you will have them longer, and more vivid.



- A common technique is called Waking Induction of Lucid Dreaming (WILD). This involves going from the waking state directly to the lucid dream state. To use WILD, you have to recognize that you have reached the border between waking and sleeping, and you have to remain aware of your state. You may be able to enter a dream with complete awareness, and an ability to change events to suit your needs.
- Another effective method is the Cycle Adjustment Technique (CAT), which means adjusting your sleep hours so that you are more alert during the later portions of your sleep. To do so, try to wake up about an hour and a half before you normally do, and continue to do so until your cycles are completely adjusted. This heightened awareness of having to wake up; alternating with normal hours of waking at the usual time, actually makes the body more aware of the dreaming state, and can induce lucid dreaming.
- Don Juan's Technique is also like MILD, except that it requires focus on your hands. All you have to do is to stare at your hands before going to sleep, then telling yourself (preferably aloud) that when you look at your hands later, you will realize that you are in a dream state. When you do reach the dream state, look at your hands again, repeat the words to yourself, and continue to do so to keep your awareness during the entire dream.

Lucid dreaming experts recommend three basic steps to induce a lucid dream. First, you have to relax as you go to sleep. Second, remain aware of your dream state. Last, enter your dream, and continue to remain aware of the state, all while enjoying what your dream can offer. In lucid dreaming, you can fly, run at impossible speeds, experience activities that you might not normally do while you are awake, get ideas for a novel or work of art, and even rehearse scenarios that you might encounter in real life!





Once you know that you are dreaming, remember every single detail of your dream. Try to manipulate the dream to suit your preferences. If you can, keep a dream journal, along with a pen, on your bedside table. As soon as you wake up from your dream, relax, keep your eyes closed to remember as many details as possible, then open your journal and write everything down.

Lucid dreaming can be done by everyone, and its benefits can be enjoyed by all. If lucid dreaming can rid us of our inner demons, then by all means, let the sleeping begin!