## Sleep Tips and Info Against Insomnia

Insomnia can be defined as any severe problem falling asleep or staying asleep. Insomnia is a rather common problem, affecting about $30 \%$ of all adults. Insomnia is more common among women and older adults but can occur in people of all ages and all social classes.

Insomnia has to be differentiated from

- circadian rhythm disorder (sleep periods or duration is not according the local clock or usual time)
- parasomnias (behavioral events like sleepwalking or night terrors interfere with restorative sleep)
- secondary insomnia (medical and psychiatric problems are the source of the sleep problems.
Other sleep-related disorders like sleep apnoea with additional respiratory impairments or problems or extended sleep or tiredness like narcolepsy are classified in separate sections.

To evaluate the degree of impairment you have to consider the daytime consequences of the problem. Usually insomnia will cause fatigue during the day, with loss of concentration or trouble focusing on tasks. Sleep problems can also have an influence on the mood or psychosomatic complains like hypertension. We know that different factors can contribute to insomnia including psychological issues or psychiatric disorders, environmental factors, stress or medical disorders. Alcohol and even some drugs can also cause chronic sleeping problems.

Short periods with disturbed sleep for a night or two usually do not cause any severe problems. But if it affects daily functions and lasts for weeks, months or even years you should consider professional help.

Sleep deprivation is getting more and more common in our stressed-out society. Nine out of ten people of the working population would sleep longer in the morning if they had the chance, and almost one third of the population suffer from sleep deprivation. About ten percent of the population are constantly getting too little sleep. Half of these cases are due to problems falling asleep and the other half are due to disturbances by, for example, children or noise. Sleep deprivation is more common with women than men.

Most people need between six and nine hours of sleep per day and on average adults sleep eight and a half hour if they are allowed to sleep as much as their body needs. An adult sleeps on average seven and a half hour per day.

Approximately 40 percent of the population use medicines or herbal medicines at least once a week because of sleeping problems.

## What is sleep?

Sleep is a complicated process that is needed in order to give the brain and body rest, time to recover and process impressions. Sleep is important for growth during childhood and adolescence. During the day, but especially when we sleep, the body produces growth hormones that, among other things, strengthen the bones and build muscles.

Sleep is usually divided into five stages. When you have passed through all five stages you start over at stage one. One such sequence is called a sleep cycle. Here follows a short description of the five stages of sleep:

- Drowsiness (stage 1): Your heart rate slows down, you start to breathe slower and your metabolism slows down. This stage usually lasts five to twenty minutes.
- Light sleep (stage 2): Brain activity is lower than during stage 1. This type of sleep constitutes about half of the total sleep time.
- Deep sleep (stages 3 and 4): During these stages the brain activity is at its lowest. The body produces almost no stress hormones but a lot of growth hormones.
- Dream sleep, REM sleep (stage 5): During this stage the eyes are moving rapidly behind the eyelids, hence the name Rapid Eye Movement (REM). During this stage breathing gets faster, the heart beats faster and the blood pressure rises. The brain now works in a similar way as when we are awake. You can dream during all stages of sleep, but dreams are most common during this stage.


## The effects of sleep deprivation

There seems to be a connection between long term sleep problems and cardiovascular diseases and depression. Sleep deprivation also lowers the immune defense and can cause heightened sensitivity to pain, which can worsen the symptoms of pain diseases like fibromyalgia and arthritis. Sleep deprivation can also be a factor behind elevated blood pressure. Sleep in itself has a reducing effect on blood pressure and with too little sleep the body's ability to regulate blood pressure is reduced.

Sleep also helps to regulate our feelings of hunger and satisfaction. According to some studies the body's amount of leptine, a hormone that makes us fell sated, is reduced with less sleep. At the same time the amount of ghrelin, a hormone that makes us feel hungry, increases. So it seems as if there is a connection between sleep deprivation and obesity, and all the diseases that are related to obesity.

Sleep is also important for our body's ability to take care of free radicals. These molecules are a factor in the aging of cells and seem to increase the risk of cancer.

Sleep is very important, for body, mind and our general well-being. Long term sleep problems often contribute to a lowered quality of life.

| The effects of sleep deprivation |  |
| :---: | :---: |
| Short term effects | Long term effects |
| - Sleepiness <br> - Mood swings <br> - Short term memory deterioration <br> - Diminished ability to come up with, plan and carry out activities <br> - Difficulty concentrating | - Obesity <br> - Early aging <br> - Exhaustion <br> - Increased risk of infections, diabetes, cardiovascular diseases and gastrointestinal diseases <br> - Chronic memory loss <br> - Weakened immune system |

## Insomnia:

Insomnia can be defined as a difficulty falling asleep, frequent awakening during the night or a feeling of not getting enough rest. There is a difference between chronic and acute insomnia. Chronic insomnia means that the problem has lasted more than three weeks and acute means it has lasted less than three weeks. Acute insomnia is often due to external factors, for example a death in the family. The symptoms of insomnia are: Difficulty falling asleep (taking at least 30 minutes), waking up more than three times per night or being awake for more than 45 minutes. Another symptom is waking up to early, which is defined as waking up before you have had six hours of sleep, and not being able to go back to sleep. To get the diagnosis insomnia your everyday life has to be negatively affected due to the lack of sleep, for example difficulty concentrating and mood swings.

Insomnia is often not an illness of its own but rather a symptom of other problems, for example psychological conditions like depression, substance abuse and/or anxiety. Other causes of insomnia can be hormonal changes following pregnancy or menopause, pain or medication. Stress or changed sleeping habits can also cause insomnia.

If you experience difficulty falling asleep, or if you wake up during the night or too early in the morning, and if lack of sleep is lowering your quality of life, it might be a good idea to see a doctor. Insomnia can be treated both with psychotherapy and by medications.

## Practical advice against sleeping problems

- Short naps during the day is an effective cure if you are tired. Fifteen minutes of sleep in the middle of the day is more rejuvenating than the last two or three hours of sleep during the night. The downside is that sleeping during the day might negatively effect the night sleep.
- Change your evening habits. Demands from friends and family can be just as stressful as a work. Thus you should make sure that you don't have any obligations during the evenings and try to go to sleep earlier.
- Alcohol consumption and smoking deteriorate the quality of your sleep. Thus it might help to quit smoking and/or cut back on alcohol consumption.
- Stress increases the metabolism which in turn prevents the sleep from being as deep as it should, and it also makes it easier to wake up. This means that it will take longer for you to fall asleep and you will more often wake up during the night or early in the morning.
- Create a good sleeping environment. Most people sleep best in a dark, cool (14$18^{\circ} \mathrm{C} / 57-64^{\circ} \mathrm{F}$ ) and quiet room with a good bed.
- Avoid alcohol and stimulating beverages such as coffee, tea, energy drinks and cola for at least six hours before you go to bed.
- Don't go to bed hungry.
- Sleep at regular hours.
- Try to have some physical activity every day.
- Wind down before you go to bed. This can be done by for example reading, watching TV, playing with children or anything else that makes you feel relaxed without feeling like an obligation.
- Take a warm bath an hour before going to bed.
- Learn relaxation techniques that you can use when going to bed.
- Place your alarm clock so that you can't see what time it is from your bed. It can be stressing to see how long you have been lying awake.


## Create the Perfect Sleep Environment

The better your sleep environment, the easier it will be for you to enter into deep refreshing sleep. A positive sleep environment is one that actively promotes sleep, where as a negative sleep environment naturally suppresses sleep and promotes insomnia.

By sleeping in a poor sleep environment, you can develop what's called learned insomnia. This is where your mind and body expects you to stay awake through the night and so doesn't doesn't begin to prepare your body for sleep until much later in the night.

The habit of learned insomnia is supported by your environment or outside influences. Your mind naturally associates events and situations with certain assumptions.

Take for example your bed. A bed in a positive sleep environment would represent in your mind a place of relaxation and refreshment. A bed in a negative sleep environment might represent the dread of staying up all night and the anxiety you feel as you can't sleep.

These assumptions and representations are important because there is a strong link between your mind's expectations and the actual result. If your mind associates your bed with relaxation, you will feel relaxed lying on it. But if your mind associates your bed with anxiety, lying on it will cause you to feel anxious.

By creating a positive sleep environment, you are setting yourself up for a great night's sleep. Just a few simple changes can improve your sleep and help you overcome insomnia. In this series we'll look at how you can create the perfect sleep environment.

## FIVE TIPS TO BETTER SLEEP

## 1. Sleep in a comfortable bed

Your bed can be the deciding factor between getting a great night's sleep and getting no sleep at. In terms of personal well-being, it's one of the most important items in your house.

The key item on your bed is your mattress. There's many different types available, including:

- Open coil - The most common. A standard no frills spring mattress.
- Pocket sprung - Responds to weight independently so the bed doesn't sink on the heaviest side. Good if there's a size difference between you and your sleeping partner.
- Memory Foam - Moulds around your body to provide complete support. Good if you suffer from pain or discomfort in bed.
- Latex Foam - Popular in many European countries. Similar to memory foam except the foam doesn't mould around your body.

There's also a large variety of pillows, all with different shapes, tensions and materials.
Everyone has their favorites so the best thing is to go to a bed store and try them out. If you've got a hopeless mattress but don't want to buy a new one, consider getting a mattress topper. Or alternatively you could cover your mattress with an extra duvet. This is what I did back in my student days and it softened out the mattress just enough so I couldn't feel the lumps any more. Spending a bit of money to make your bed that extra bit more comfortable is definitely worth it, considering that it is probably the most used piece of furniture in your house. The amount of time saved from lying awake in bed unable to sleep and the mental clarity you'll get from a great night's sleep will undoubtedly pay for itself.

## 2. Keep your bedroom dark at night

The amount of light around you is one of the clues your body clock uses to work out the time. In particular, when it's time to wake up and when it's time to sleep.

Darkness acts a natural way to tell your body that it's time to sleep. When you're in darkness, your body releases a hormone called melatonin that relaxes your body helping you drift off to sleep. Light however suppresses melatonin. So the darker your room, the easier it'll be for your body to fall asleep. Even in the middle of the night, it's all too easy for your room to be lit up by street lighting or even a full moon. So consider investing in some good curtains or indoor blinds that don't let any light in. Alternatively you can line your existing curtains with a special material . It's a cheap but effective way to get a better nights sleep.

## 3. Add white-noise to taste

Everyone reacts differently to recurring noises such as snoring or heavy breathing. Some people can sleep right through them, while others can't stand them. But most people find a constant white noise such as rainfall incredibly relaxing. With this in mind, consider blocking those annoying recurring sounds with a nice relaxing constant sound.

## 4. Use your bedroom / bed only for sleeping

When you think of your bedroom and everything in it, what do you think of? Do you think of work, entertainment, work or sleeping? Ideally, your bedroom should be a place to sleep and nothing else. Anything entertaining or work related such as TVs, computers and games consoles shouldn't be in your bedroom if you can help it. Of course, not everyone has the luxury of a dedicated bedroom. By using your bedroom or bed only for sleeping your brain will begin to naturally associate your bedroom with sleep. As it does this, you'll find it easier to fall asleep each night.

## 5. Create a relaxing atmosphere

Here's a few ideas to get that perfect relaxing atmosphere for your bedroom:

- Fill it with nice, cozy cushions and pillows.
- Add the smell of lavender to help you drift off to sleep.
- Keep it crystal clean and worry free.
- Color it relaxing blues and purples.
- Play soft calming music before you go to bed.

Be creative and have fun. Dedicate your bedroom to being the place of ultimate relaxation.

## Establish a Regular Routine

Establish a regular routine that includes going to bed and getting up at the same time every day, even on weekends. Maintaining a consistent sleep-wake cycle is the key to better health overall.

## Get an Adequate Amount of Sleep Every Night

Determine the amount of sleep you need by keeping track of how long you sleep without using an alarm clock for a week.

## Go to Bed When You Are Sleepy

If you have difficulty falling asleep or wake up shortly after going to sleep, leave the bedroom and read quietly or do some other relaxing activity. Avoid bright lights.

## Develop Sleep Rituals Before Going to Bed

Do the same things in the same order before going to bed to cue your body to slow down and relax.

## Avoid Stress and Worries at Bedtime

Address tomorrow's activities, concerns, or distractions earlier in the day. Certain activities, such as listening to soft music, reading, or taking a warm bath, can help you wind down.

## Use Your Bed for Sleeping and Sex Only

Often, doing other activities in bed like watching TV, paying bills, or working only serve to initiate worries and concerns. Let your mind associate the bed with sleeping, relaxing, and pleasure.

## Avoid Heavy Meals Late in the Evening

Avoid heavy meals late in the evening; similarly, avoid going to bed hungry. A light snack especially dairy foods, can help you sleep.

## Reduce Your Intake of Caffeine and Nicotine

Reduce your intake of caffeine and nicotine 4-6 hours before going to sleep. Stimulants interfere with your ability to fall asleep and progress into deep sleep.

## Avoid Alcohol 4-6 Hours Before Bedtime

Alcohol can end up causing fragmented sleep and aggravates snoring and sleep apnea.

## Exercise Regularly

## Don't Nap for More than $\mathbf{3 0}$ Minutes or After $\mathbf{3} \mathbf{~ p m}$

Longer naps disrupt the body's ability to stay asleep.

## Keep it Dark and Cool

Maintain a dark, quiet and cool room to sleep in.

## Use Sleeping Aids Conservatively

Avoid using sleeping aids for more than one or two nights per month
Evaluate your sleep, if a Sleep Program does not help please see you Medical Doctor and take along the following evaluation. The Pittsburgh Sleep Quality Index (PSQI) is an effective instrument used to measure the quality and patterns of sleep. It differentiates "poor" from "good" sleep by measuring seven domains: subjective sleep quality, sleep latency, sleep duration, habitual sleep efficiency, sleep disturbances, use of sleep medication, and daytime dysfunction over the last month. The client self rates each of these seven areas of sleep. The PSQI can be used for both an initial assessment and ongoing comparative measurements

