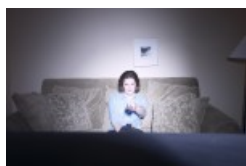


**informedhealthonline.org**

INDEPENDENT, OBJECTIVE AND EVIDENCE-BASED

## Fact sheet: Relaxation therapy and sleep habits to reduce insomnia



Tossing and turning, worrying about whether you will get enough sleep and how you will get through the next day: everyone has a night like that sometimes. But if it is happening three or more nights a week and this goes on for longer than a month, then you might be struggling with chronic insomnia. There could be many reasons for your sleeplessness. If it has been going on for weeks or months, speaking with a doctor about it can help to find out whether there is a medical reason for the insomnia.

If you are having trouble sleeping because of worry and poor sleep habits, then there are many things you can try to do to get a better night's sleep. Many people want to avoid medication if they can, but still get a good night's sleep. There are lots of pieces of advice about what works - a hot bath or warm milk before bedtime, for example. But what really works? Is watching TV in bed a good idea? Read on to find out more about non-drug options for chronic insomnia. If you are sleepless tonight, you will not be alone: around 20% of the population - or one in five people - is struggling with insomnia.

## What is "normal" sleep?

Good quality sleep is when you fall asleep quite easily, do not wake up fully during the night, do not wake up too early, and feel refreshed in the morning. It is not normal at any age to regularly have a lot of trouble getting to sleep and staying asleep if you are healthy.

Our sleep patterns change a lot in childhood, and then more gradually as we get older. Babies need to sleep a lot more than older children and adults. By around school age, or five years old, most children have the typical sleep patterns of an adult. We are awake through the day and then have one long sleep through the night. During that sleep we have several cycles of lighter and deeper sleep. When we are teenagers and young adults, we get a little more deep sleep, and when we are over 60 we get a little less. You can read more about this [here](http://www.informedhealthonline.org/index.409.en.html) (URL: <http://www.informedhealthonline.org/index.409.en.html>).

By the time they are five years old, the average healthy child gets about nine hours sleep a night. Teenagers get an average of eight hours sleep a night, and this slowly reduces as we get older. By around 40 years of age the average person is sleeping around seven hours a night, and this reduces to about six and a half hours a night on average between 55 and 60 years of age. Around the age of 80 a healthy person will sleep an average of six hours. But these are all average times: different people need different

amounts of sleep.

That total sleep time is the amount of time from when we turn off the light, close our eyes and try to sleep, until we wake up fully and get up in the morning. We do not need seven or eight hours of deep sleep every night. It is normal to be in lighter sleep about half the time, and it is normal to take half an hour to fall into slightly deeper sleep after turning off the light.

While it is normal to sleep a little less when you get older, many older people are getting too little sleep for their age. One of the main reasons that older people have trouble sleeping is because they are more likely to have health problems or be taking medication that is interfering with their sleep. There are many health conditions that interfere with sleep, and you can read a little more about those [here](http://www.informedhealthonline.org/index.409.en.html) (URL: <http://www.informedhealthonline.org/index.409.en.html>). Chronic insomnia is more common in women and in older people, but it can happen at any age - including in small children.

If you are really having a lot of trouble sleeping, talking with your doctor could help you find out why. Even if you want to avoid taking medication ("sleeping pills"), there are still many ways your doctor could help you - for instance by ruling out any medical conditions that could need treatment and letting you know what types of sleep therapy are available in your area.

## What are the treatment options for sleeplessness?

If the sleeplessness is being caused by another health problem, then that problem may need to be managed first so that you can sleep better again. Many people who have chronic insomnia use sleep medications, and often use them for years. These kinds of medication are only meant to be used as a temporary help, though - that means for weeks, and not for months or years.

Prescription medication might be important at a time where it is becoming almost impossible for you to sleep. It can help you get a little more sleep so that you can start to try other options. But sleep medication can cause a lot of adverse effects, and may interfere with your concentration and safety during the day as well. For example, it could be a particular problem when you need to drive or operate machinery, and could increase the risk of falling in older people. It can also interfere with other medications. These are some of the reasons why non-drug

options are important.

There are many things that you can try out to help you sleep better, like exercise and bright light therapy, for example. More research is being done on these, and we will report on that when reliable answers about how well they work become available.

Some people also try out complementary medicines (like valerian or melatonin), techniques like yoga, autogenic training and acupuncture, and traditional remedies like a glass of warm milk before bed. Although some research shows that valerian and melatonin might be able to help, that is by no means certain, and there is also no clear proof that other complementary and traditional measures work.

One of the main things to do is avoid the things that might be interfering with your sleep, especially drinking too much alcohol. Although alcohol can help you fall asleep more quickly, in fact, it lowers the quality of your sleep and makes it harder for you to sleep through the night.

Out of the non-drug options for getting better sleep, certain techniques and kinds of training to change sleep habits have been shown to help some people whose insomnia is not caused by a medical condition. So we will explain those in some more detail here.

### **What kind of relaxation techniques are used to improve sleep?**

Relaxation techniques aim to help reduce physical tension and stop you thinking about things that will make it difficult for you to sleep. The goal is to achieve mental and physical peace and tranquility. The most common of these is progressive muscle relaxation, which is also often called the Jacobson method. This is where you are taught to gradually tense and relax the muscles in each part of your body, either in a class or using an audio recording.

Autogenic training (AT) is commonly used too. The aim of this technique, which can be learnt in a class, is a kind of "self-hypnosis". It involves focusing awareness on different parts of the body and relaxing them. As people become more advanced, the idea is that they will be able to influence involuntary body functions such as their heart beat and breathing. It is believed that reaching deep physical relaxation in this way will relieve stress and negative feelings.

Another type of treatment is biofeedback, where you learn

about your body's reaction to tension and how to relax areas of tension in your body. This is done using electrodes attached to your body, and you can see the electrical signals that show how tense your muscles are on a screen, for instance. Another common type of relaxation training is imagery, where you visualise very peaceful scenes or imagine yourself breathing quietly, gently falling asleep and having a good night's sleep.

One of the key elements of relaxation as an approach to sleeping is also to worry less about getting enough sleep: lying there worrying about not falling asleep will not help.

Researchers have found that, while relaxation training does not help everyone, on average people sleep a bit longer at night if they have training in these techniques. The quality of their sleep does not really improve, but they get to sleep a little sooner. The typical amount of training was one session a week for four weeks. You can read more about that research here (URL: <http://www.informedhealthonline.org/index.410.en.html>) .

### **What about sleep habits, "sleep hygiene" and other training?**

Researchers have concluded that these different kinds of habit or behaviour training could help improve people's sleep quality, but no particular type has been proven to help people fall asleep more quickly or sleep for longer. However, people who have had this training are less wakeful during the night and have a more peaceful sleep, which means that you could get a better night's sleep if you use these methods.

Again, like relaxation training, there are classes where you can learn techniques to change your sleep habits. They vary a lot, but one session a week for four weeks was a typical amount of training in the research on these methods. You can read more about that research here (URL:

<http://www.informedhealthonline.org/index.410.en.html>) . There are many different things you can do to change your sleep habits. Although many people swear by these techniques, none of them has been clearly proven to work. Some may simply be suited to some people, but not others.

#### *Sleep hygiene*

The following set of habits, also called "sleep hygiene", could make a positive difference:

- Do not use alcohol, coffee, tea or other stimulants for four to six hours before you go to bed
- Avoid smoking before bedtime or during the night
- Avoid large or very spicy meals just before going to bed
- Get exercise, but not very strenuous exercise, just before you go to bed
- Try and make sure your bedroom is quiet, dark and a comfortable temperature

## *Stimulus control*

This is meant to help you establish a clearer "sleep-wake" pattern, and associate the bed with only sleeping. For this, you are supposed to establish a consistent schedule and habits for going to sleep. This means:

- Only going to bed when you feel tired
- Getting out of bed if you are unable to sleep
- Using the bed and bedroom for sleeping (and sex) only - not for reading, watching television or eating
- Getting up at the same time every morning
- Not having naps during the day

## *Sleep restriction*

This aims to restrict the time you spend in bed to the time when you are actually asleep. For example, if you usually lie in bed for eight hours, but only sleep six hours, then the idea is that you should only spend six hours in bed. Then you adjust the time you lie down, until you find the optimum length of time for you personally to spend in bed to get a good night's sleep.

## *Cognitive therapy and cognitive-behavioural therapy*

Cognitive therapy aims to help you change your thinking patterns about sleep. This is not just simple "positive thinking". It is about changing exaggerated, unrealistic beliefs about sleep. For example, you might be convinced that you will always wake up at 3 o'clock in the morning and will not be able to get back to sleep. In cognitive therapy, you would work on this way of thinking, so that it does not become a self-fulfilling prophecy.

One of the common negative thoughts that people have when they cannot sleep is: "If I cannot get back to sleep, it will be a catastrophe, because I will never get through the day tomorrow." A more realistic thought could be: "This happens from time to time. It is still possible that I could get

some sleep. And if I don't, then it won't be the end of the world."

More realistic beliefs about sleep also include not worrying about how many minutes sleep you get. The most important thing is how well you feel during the day, and whether your sleep is restful enough for you to have a good quality of life.

Cognitive-behavioural therapy for insomnia is generally a mixture of some of the techniques and therapies that have been described above.

## **What about napping during the day?**

There are conflicting theories and research results about whether it is a good or bad idea to nap during the day. Some studies have looked at whether napping during the day can make up for not having enough sleep at night so that, for example, you are able to drive more safely. A lot of that research has been done in industries where this is a major issue, like aviation, transportation and the military. Because of this, the studies were often of very healthy young people who do not have insomnia in the way that other people do: the participants tended to work very long hours or in shifts.

NASA, the American space agency, asked researchers to review these studies. The researchers concluded that it was not yet clear whether or not daytime naps can help you recover from the effects of a lack of night-time sleep - and that the results may not be relevant to older people or to people with sleep problems anyway. Other researchers have been concerned instead with whether or not napping helps you sleep better at night, or means that you will sleep less well because of the nap. There is no clear answer there yet either.

As with many questions about sleep, you may have to try out a few things to find out what is best for you personally until researchers come up with more definitive results. If major new results emerge, we will let you know. To keep up-to-date with our information, you can subscribe to our newsletter [here](http://www.gesundheitsinformation.de/index.39.69.en.html) (URL: <http://www.gesundheitsinformation.de/index.39.69.en.html>)

**Glossary**

## acupuncture

Acupuncture is a complementary form of therapy used in traditional Chinese medicine. A doctor inserts thin needles at precisely defined points on the body. This is supposed to loosen what are thought to be blockages in the body or to stimulate or calm different organs.

## Sources

Agency for Healthcare Research and Quality (AHRQ). *Manifestation and management of chronic insomnia in adults. Evidence Report/Technology Assessment Number 125*. Rockville: AHRQ. 2005. [Full text (URL: <http://www.ahrq.gov/downloads/pub/evidence/pdf/insomnia/insomnia.html>) ]

Cheuk DKL, Yeung WF, Chung KF, Wong V. Acupuncture for insomnia. *Cochrane Database of Systematic Reviews* 2007, Issue 3. [Cochrane summary (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD005472/frame.html>) ]

Driskell JE. The efficacy of naps as a fatigue countermeasure: a meta-analytic integration. *Human Factors* 2005; 47: 360-377. [PubMed summary (URL: [http://www.ncbi.nlm.nih.gov/pubmed/16170944?ordinalpos=12&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed](http://www.ncbi.nlm.nih.gov/pubmed/16170944?ordinalpos=12&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed)) ]

Morin CM, Bootzin RR, Buysse DJ, Edinger JD et al. Psychological and behavioral treatment of insomnia: Update of the recent evidence (1998-2004). *Sleep* 2006; 29: 1398-1414. [PubMed summary (URL: <http://www.ncbi.nlm.nih.gov/pubmed/17162986?dopt=Abstract>) ]

Ohayon MM, Carsdakon MA, Guilleminault C, Vitiello MV. Meta-analysis of quantitative sleep parameters from childhood to old age in healthy individuals: developing normative sleep values across the human lifespan. *Sleep* 2004; 27: 1255-1273. [PubMed summary (URL: [http://www.ncbi.nlm.nih.gov/pubmed/15586779?ordinalpos=21&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed\\_ResultsPanel.Pubmed](http://www.ncbi.nlm.nih.gov/pubmed/15586779?ordinalpos=21&itool=EntrezSystem2.PEntrez.Pubmed.Pubmed_ResultsPanel.Pubmed)) ] [Informed Health Online summary (URL: <http://www.informedhealthonline.org/index.409.en.html>) ]

## **The German Institute for Quality and Efficiency in Health Care (IQWiG)**

The German Institute for Quality and Efficiency in Health Care (IQWiG) was established by legislation to provide evaluations of the effectiveness, quality and efficiency of healthcare services. This includes the assessment of medicines as well as the publication of health information for consumers and patients.

## **Evidence basis of our health information**

Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at [\*\*www.informedhealthonline.org\*\*](http://www.informedhealthonline.org)

## **Disclaimer**

This information was prepared and published by the German Institute for Quality and Efficiency in Health Care (IQWiG). It is based on the evidence and other scientific literature available at the time of publication. The information is intended for the use of patients in Germany. It is not intended to for use to diagnose illnesses and the information is not intended to substitute for medical advice.