

# Insomnia and Sleep Problems



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**Summary:** Sleep is essential for our physical and emotional health, yet with all the pressures of modern society, more and more people are finding it hard to get enough sleep. Fortunately, there are many simple yet powerful ways to get your sleep back on track.

## Introduction

It seems like life is getting more and more stressful all the time, with demands for work, school, family and home responsibilities. As a result, we often cut back on the very things that are the most important, like getting enough sleep...

Getting enough sleep is essential. Studies show that getting enough sleep is essential for maintaining proper health. Furthermore, lack of sleep can cause numerous health and related problems. It is a risk factor for mental health problems such as depression, and can also contribute to cardiovascular and other conditions. Being sleep deprived also significantly increases your risk of being in a motor vehicle accident.

How much sleep should someone get? Every person is unique, and there is a wide range of what is considered “normal” sleep. The usual range is that some need as little as 6 hrs, whereas others need 10 or more. The average person needs about 8 hrs of sleep per night (Kryger, 2005).

## How Common is Insomnia and Sleep Problems?

Insomnia, or troubles sleeping are quite common. About 30% of adults report troubles falling asleep, staying asleep or having unrefreshing (nonrestorative) sleep. About 10% of the population have sleep problems so severe that it causes problems or distress during the daytime.

## Why Do People Have Sleep Problems?

Many factors can contribute to poor sleep:

- Poor sleep hygiene including too much blue light in the evening: During most of human evolution, it would get dark at night, and that was the signal that it was time to sleep. But in our modern society, we have disrupted our regular cycles of light and darkness through artificial lighting, and activities such as shift work. When it is bedtime, we end up sitting in front of electronic screens (e.g. TVs, computer screens, tablets and smartphones), which has blue light that tricks our brains into thinking it's daytime, which thus impairs our sleep.

- Lack of exercise: Being physically active is another signal for sleep at bedtime, but in our modern society, instead of regular physical activity, we sit for hours at school, the office or at home.
- Stress: We live in a stressful society, which leads many people to worry at bedtime, either stressing about the day that just passed, or about the next day.
- Normal aging: People tend to sleep less and sleep lighter as they grow older. As we age, our ability to sleep diminishes, but our need for sleep stays the same. Furthermore, as people get older, they tend to need to go use the washroom in the middle of the night, which can impair sleep.
- Medical problems: Many different medical conditions can affect our sleep, and in particular there are sleep disorders such as restless legs syndrome, obstructive sleep apnea.

## "Stimulus Control" Method

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The "Stimulus Control" Method is a simple, yet very powerful technique that has been shown effective for helping with sleep (Morin, 1987). Because there are only five steps in this method this is a good basic strategy to start with.

There are five steps;

1. Go to bed only when you feel sleepy, no matter how late the hour.
2. Use your bed only for sleeping.
3. If you don't fall asleep in 10 to 20 minutes, get up and go to another room.
4. Use your alarm clock to get up at the same time every morning, regardless of how little sleep you got the night before.
5. Don't nap during the day.

During the first night of the stimulus-control procedure you may need to get out of bed several times or more. You may not sleep at all, and you may feel tired the next day. At this point you might think that the solution is worse than the original problem. But keep at it -- by the 2nd, 3rd, or 4th night, sleep deprivation will cause your body to fall asleep more quickly. Most people need about two weeks to undo the negative sleep pattern that they have gotten into.

## More Strategies for Sleep...

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In case the Stimulus Control method is not enough, then here are some more strategies:

### **What To Do In the Daytime**

- Wake up the same time every day, whether its weekdays or weekends.
- Eat a healthy, nutritious diet. Have regular, consistent mealtimes which helps set your body's internal clock. Some people find it helpful to avoid large meals at night.
- Get lots of sunlight during the daytime, especially in the mornings ideally by being outside (with sunscreen). During daylight hours, get at least an hour outside a day. Being indoors in modern buildings is not enough light unfortunately, as modern buildings block too much of the light that we need. Even being beside windows will limit light exposure, so it is important to actually be outside.
- Keep a regular schedule and routine. Stick to the same sleep schedule as much as possible both on schooldays, workdays and days off (i.e. weekdays and weekends)
- Napping. Avoid or limit daytime napping that might interfere with nighttime sleep. Generally, limit naps to between 10-45 minutes in length, as longer naps may cause deep sleep that will disrupt nighttime sleep. Best times for napping about between 2-6 PM; naps after 6 PM may also result in deep sleep which may affect nighttime sleep.
- Exercise. Regular, moderate-intensity exercise is known to improve sleep quality. Take a brisk walk, do

some gardening, or join an exercise class. Avoid exercise in the late evening before bedtime because it may over-stimulate the body.

- If you live in the northern hemisphere (e.g. Canada), consider a seasonal affective disorder (SAD) light during winter months. Make sure that you sit near it for 30 minutes in the morning before work/school.

### What To Do In the Evening

- Dim and/or limit light in the evening. If you are having sleep problems, the best thing would be to not have any artificial light or technology in your home. Then, as it gets dark, you are exposed to natural darkness and you'd sleep. (Such as might happen if you went camping...)

The next best option is that you can try to turn off unnecessary lights, and ideally, have dimmers on your lighting. Then, you can simulate the normal darkness that happens as the sun starts to set.

- Low blue sunglasses. Consider wearing orange (i.e. low blue light) sunglasses about 1-2 hrs before bedtime, in order to block the blue light that makes it hard to sleep.
- Low blue light lightbulbs. Use orange / red lightbulbs about 1-2 hrs before bedtime. These can be easily purchased online or in most lighting stores.
- Turn off all electronics and stop looking into any electronic screens at least 1-2 hrs before bedtime.
- If you absolutely must use a computer screen in the evening, explore 'low blue light' apps such as Flux.io for Mac/PC. These apps will change the hue of the computer to a orange/red light, so the computer will block less of your body's melatonin.
- Figure out what activities help your body feel soothed and relaxed, in order to "wind down" your body for sleep, so that you can do those as part of your bedtime routine. If you are having sleep problems, then try to give yourself at least 1-hr or so of wind down time.
- Avoid stimulating activities at bedtime. For many people, even watching TV can be stimulating, because it tricks the eyes into thinking that its daytime, and thus making it harder to sleep.
- Consistency and routine. Your body's internal clock likes routines. Have the same, regular bedtime routine every night. Keep the same routine on weekdays and weekends.
- Have a regular bedtime routine. It is important to have a regular bedtime routine or ritual that lets you get ready for sleep. E.g. Putting on pajamas, brushing your teeth, reading a relaxing book, prayer, etc.
- Regular exercise: Exercise may deepen sleep, but avoid exercising too close to bedtime as this can be overstimulating. Some find that exercising 4-6 hours before bedtime is ideal.
- Warm bath: Taking a warm bath to relax 1-2 hours before bedtime. In general, people find warm baths soothing, whereas hot, cool or cold baths are stimulating.
- Problems with worries? If you have too many worries that make it hard to sleep, try:
  - Writing down things to take care of the next day
  - Setting aside "worry time" earlier in the evening to deal with the worries. At that fixed time, perhaps for 30 minutes, write down the problems you are thinking about. Then write down what you would like to see different or better for your problem. Then tell yourself, "Okay, I won't focus on this tonight, because there is nothing else I can do about it tonight. I've written these things down, and I'll focus on it tomorrow, when I'll be fresh and more effective at dealing with it."
- Reading: Read a nice, relaxing book. Avoid reading anything that is too exciting, interesting or stimulating! If reading an exciting mystery thriller gets you too excited, then consider instead reading something non-fiction, like a book of facts, or even a dictionary...

- Do you get thirsty at night? Have a glass of water by your bedside so you don't have to wake up and get out of bed. But don't drink excessively to avoid bathroom trips in the middle of the night.
- Be aware of your sensory needs. Every person has a certain need for a certain amount of sensory input (e.g. sound, touch, sight, smells, etc).
  - Hearing / Sound
    - Some people are sensitive to sound, so they need to keep their bedroom quiet. Strategies include getting earplugs.
    - Other people may need some sound stimulation, so they need to have sound, e.g. background noise from a fan, radio or television turned to a "static" setting, or a white noise generator, or a relaxation CD (e.g. those that have water, wind or rain sounds). Play quiet, relaxing music. Make your own CD of soothing, relaxing music.
  - Seeing / Visual:
    - Some people find it helpful to keep things darker in the evening, and in their bedroom. Strategies include getting lights with dimmers in the evening to dim the lights before bedtime. While sleeping, some find it helpful to wear eyeshades, or blindfold. Others find it helpful to have good blinds to keep the sunlight out.
    - Consider decreasing visual stimulation in the bedroom. This might mean cleaning up and tidying your bedroom so that it doesn't have an overwhelming amount of distractions. For example, if you have stimulating things such as a television or computer, consider removing them. Use "natural lighting" fixtures when possible. When it's bedtime, dim the lights in your room.
  - Touch / Temperature
    - Avoid extreme room temperature or humidity; keep it moderate. Some find that humidifiers help. In general, cooler temperatures help facilitate sleep, but individual preferences vary widely.
  - Olfactory or smell strategies
    - Try aromatherapy strategies such as a drop of lavender oil on a pillow
  - Movement strategies
    - Rocking rhythmically in a rocking chair with the lights dimmed and listening to quiet music (combines movement, visual and auditory strategies)
    - Avoid vigorous exercise before bedtime, because it may get your adrenaline running which then keeps you from being sleepy.
- Warm drink at bedtime. This raises the body temperature slightly and later, when the body temperature falls, this may be helpful for sleep. This is also believed to be the reason why (mild) exercise can help with sleep. (Note that in the past it used to be believed that drinks such as milk have tryptophan which helps with sleep, but this is longer the case. The amount of tryptophan in a glass of milk is felt to be too low for sleep; in fact, it is felt you'd probably have to eat the equivalent of ten turkeys in order to have enough tryptophan to help you sleep! Note that eating a turkey dinner does may one sleepy, but this is felt to be on the basis of all the blood going to your digestive system to help digest the turkey!)

## Don'ts for Sleep

- Don't sit too long in front of television or computer screens: Watching television or using the computer is used by some people. However, be careful because this can make many people more stimulated, as the brightness of the TV or monitor can trick the body into thinking its daytime. New studies show that blue light is particularly potent at tricking our biological clock, making the computer a particularly powerful at sabotaging our sleep, because of the common blue background. If you are having troubles with sleep, try to avoid exposure to television or computer before bedtime.
- Avoid stimulants before bedtime: Stimulants, such as 1) Nicotine, and 2) Caffeine (coffee, tea, and cola) should be avoided at least 5 hours before bed time. Studies have shown that one or two small cups of coffee consumed in the morning can affect the quality of sleep that same night. Replace caffeinated beverages with caffeine-free or decaffeinated beverages such as herbal tea, mineral water, fruit and vegetable juice, or

decaf coffee. On the other hand, some people actually do find caffeine is soothing. Many of these individuals tend to be those with attention-deficit disorder (ADD), or attention deficit hyperactivity disorder (ADHD).

- Don't drink too much before bedtime: Don't drink too much in the evening, because then you might have to wakeup in the middle of the night to go to the washroom.
- Don't drink alcohol: Don't drink alcohol 4-hrs before bedtime - although it is a depressant and may help you fall asleep, it tends to cause poor quality of sleep by impairing our ability to make it to deep sleep, leaving us feeling more tired the next day. If you are suffering from insomnia, it is probably best to avoid alcohol completely.
- Don't be a clock watcher. If you need an alarm clock, put it where it can be heard, but not seen.
- Don't try to sleep: In other words, if you are lying in bed trying to sleep, then get up and do something else until you are feeling sleepy.

## When to see a doctor

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If you try various basic strategies, but are still having troubles with your sleep, then see your doctor. Your family physician, who can take a closer look and help figure out what is causing your sleep problems.

There could be medical conditions contributing to your sleep problems, such as:

- Sleep apnea (aka obstructive sleep apnea or sleep-disordered breathing), a condition where individuals have trouble with breathing while asleep, and where they often (but not always) have snoring and periods where they stop breathing in the middle of the night and/or snort themselves awake.
- Restless legs syndrome, a condition where individuals report needing to move their legs before going to sleep, which impairs our ability to initiate and maintain sleep
- Narcolepsy, a condition where individuals have "sleep attacks", which are episodes where a person just falls asleep suddenly, or have extreme, overwhelming fatigue and tiredness.
- Stress and conditions such as major depression, or an anxiety disorder.

See a doctor if you have the following symptoms:

- You feel drowsy during the daytime (i.e. daytime somnolence), which is where you find it hard to stay awake during the daytime, e.g. where you may doze off in boring situations.
- You usually take more than 30-minutes each night to fall asleep
- You have troubles falling asleep, troubles waking up in the middle of the night, or you wake up too early in the morning
- Your partner says that you snore loudly, snort, gasp, make choking sounds, or stop breathing at night (i.e. possible obstructive sleep apnea)
- You have troubles initiating sleep because of an irresistible urge to move your legs (i.e. possible restless legs syndrome)
- You have been told that your legs or arms jerk often during sleep (i.e. possible periodic limb movement disorder).
- You have episodes of sudden muscle weakness when you are angry or fearful, or when you laugh (i.e. narcolepsy).

## Sleep conditions in children

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Children can have sleep conditions too, though their symptoms are usually not as obvious. Note that children may not appear to have excessive daytime sleepiness, but rather than may appear distractible and hyperactive with sleep deprivation or sleep fragmentation. It is estimated that up to 30% of children with ADHD may be misdiagnosed and may actually have obstructive sleep apnea. If discovered, this can often be addressed with a simple surgical procedure.

## Recommended Books

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- Say Good Night to Insomnia: The Six-Week, Drug-Free Program Developed at Harvard Medical School, Gregg Jacobs
- No More Sleepless Nights, Peter Hauri
- American Academy of Pediatrics Guide to Your Child's Sleep: Birth Through Adolescence, American Academy of Pediatrics

## Internet Links

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- Sleep/Wake Disorders Canada, 1-800-387-9253, <http://www.swdca.org>
- Canadian Sleep Society (more for professionals), <http://www.css.to/about>
- National Sleep Foundation (NSF)
  - Website <http://www.sleepfoundation.org>
  - Website specifically for children/youth <http://www.sleepforkids.org>
- National Library of Medicine, <http://www.nlm.nih.gov/nlhome.html>
- National Heart, Lung and Blood Institute <http://starsleep.nhlbi.nih.gov>
- Talk about Sleep, <http://www.talkaboutsleee.com>
- Sleepquest, <http://www.sleepquest.com>
- Caring for Kid by the Canadian Paediatric Society, <http://www.caringforkids.cps.ca/teenhealth/TeensSleep.htm>

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## Authors

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Written by members of the Faculty of Medicine at the University of Ottawa, including:

- Dr. Michael Cheng, psychiatrist, Children's Hospital of Eastern Ontario; Associate Professor, University of Ottawa
- Dr. Elliot Lee, psychiatrist, Royal Ottawa Mental Health Centre, Ottawa; Assistant Professor, University of Ottawa

## Disclaimer

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