

# Counselor

## Insomnia

Getting a good night's sleep is everyone's goal, but from time to time, everyone has difficulty falling or staying asleep. The reasons can vary from caffeine consumption or a spicy meal to stress with a school exam or work presentation. When sleep problems continue, insomnia can occur. Anywhere from one to two percent of Canadians are affected by insomnia.



## Your Health and Sleep

# Your Health and Sleep

## Factors that can Affect Sleep

A variety of factors can reduce both the quality and quantity of sleep. If you have trouble sleeping, the first step is to check for any of the following factors and seek a suitable remedy:

- Pain can keep you awake; for example, osteoarthritis, rheumatoid arthritis, a broken bone, a muscle cramp, or cancer.
- Breathing problems such as chronic obstructive pulmonary disease or asthma may interfere with breathing and disturb sleep.
- Psychological problems including depression can alter sleep patterns as you may sleep more or less. Altered sleep patterns are sometimes the first symptom of your condition.
- Gastro intestinal reflux disease (GERD) can keep you awake. Raising the head of your bed with bricks placed under the legs at the head will help alleviate the heartburn symptoms and enable you to have a good night's sleep.
- Thyroid disease, either too high or too low, can interfere with sleep. Good control is needed and if you take a thyroid supplement check to make sure it is the ideal dose for you.
- Neurological diseases, such as Parkinson's disease, can compromise both initiation and maintenance of sleep – suitable treatment will help.
- Restless leg syndrome is the involuntary movement of your legs as you sleep – medications are available that will help solve the problem.
- Nighttime leg cramps can cause wakefulness – leg stretches can help.
- Sleep apnea is the involuntary stopping of breathing – you gasp for breath but may not awaken, and your sleep is disturbed.
- Any drugs that cause wakefulness can interfere with your sleep; for example, decongestants found in cough and cold preparations.
- A cough will keep you awake. Colds and the flu are often accompanied with coughs; however, if your cough is not caused by a cold or the flu, check for medications or medical conditions that may cause a cough.
- Spicy foods and fatty meals, especially in the evening, can result in wakefulness.
- Caffeine disturbs sleep, especially if taken later in the day. Remember caffeine can be found in foods, soft drinks and even chocolate.
- Nicotine causes alertness; thus, smoking can interfere with sleep.
- Fluid intake close to bedtime can mean you wake from your sleep to take trips to the bathroom.
- Time zone shifts such as jet lag or even shift work can interfere with your regular sleep-wake cycle.
- Stress at work, school or home can mean wakeful nights; using stress management techniques or solving the stressful situation will help.
- Unusual behavior that occurs during sleep such as sleepwalking or talking, nightmares, snoring, and teeth grinding can all impact sleep.

If you are bothered by sleepless nights, you may worry, which can further your problem.

## Normal Sleep Patterns

Sleep is categorized as either rapid eye movement (REM) sleep or non-rapid eye movement (NREM) sleep. NREM sleep is further divided into four stages with different amounts of time spent in each stage:

- Stage 1 is the transition between wakefulness and sleep. Its purpose is to start your sleeping and accounts for 2-5% of sleep.
- Stage 2 is rapid brain wave sleep and is about 50% of sleep. Its purpose seems to rest muscles and the brain. It is easy to wake up from stage 2.
- Stage 3 is slow brain wave sleep and makes up about 3% of sleep. It is considered deep sleep and is difficult to arouse from.
- Stage 4 is also slow brain sleep and accounts for 10-15% of sleep. Again, it is deep sleep and difficult to arouse from. Deep sleep is most abundant in infants; by age 65 only 10% of sleep is deep sleep, and by age 75 it is non-existent.

NREM sleep is necessary for rest and rejuvenation. However, the purpose of REM sleep is not entirely clear. When you go to sleep, a brief REM sleep period occurs, then your sleep moves through all four stages of NREM sleep. Usually four to five cycles of sleep occur each night. Cycles occur about every 90 minutes with REM sleep periods becoming longer and deep sleep periods becoming lesser. During REM sleep breathing rates, temperature, heart rate, and blood pressure change.



## The Nature of Sleep

Sleep is a patterned rhythmic activity of the brain that can actually be monitored. About a third of your life is spent sleeping, and without sleep your overall health, productivity and quality of life is affected.

Sleep is thought to be the time that your body is able to “recharge its batteries”. It is restorative and gives your brain a chance to process daily information and form memories. Not all animals sleep, however, people do need sleep; without it, both physical and mental health suffers.

Sleep occurs in four or five cycles each night, and each cycle has several stages depending upon the deepness of your sleep. Dreams occur during the REM cycle of your sleep. Everyone dreams, but not everyone remembers their dreams. Shortening REM sleep can result in an increased irritability and restlessness the next day. With age, sleep cycles shorten.

Sleep occurs according to natural daily rhythms. The tendency to fall asleep is lowest in the morning and increases until late afternoon, which may explain the tendency some people have to fall asleep in the late afternoon. The tendency lowers slightly during the early evening, then increases to the maximum around midnight.

# Your Health and Sleep

## Strategies for Improving Sleep

If you have sleep troubles, use the questions below to help identify sleep problems:

- What are your normal sleep habits? Have these habits changed?
- How long do you usually sleep?
- Do you go to bed at the same time each night?
- Do you take daytime naps?
- How long does it usually take you to fall asleep?
- Do you awaken during the night? How often, for how long, and are you able to fall asleep again?
- Do you wake up at the same time each day?
- Have you experienced any pain, worry, stress, or family problem that could be associated with sleeping problems?
- Do you consume alcoholic or caffeine-containing beverages or foods before bedtime?
- Do you have any relatives that have sleep problems?
- Does anything help you sleep, for example, exercise or moving to another room?
- Do you have any medical conditions or take any medication that could interfere with your sleep?

Keeping a sleep diary for several days or weeks may help you identify an issue that you can easily solve. A sleep diary is a history of your sleep and your activities throughout the day. Use it to track when you went to bed, when you went to sleep, when you woke up, and how rested you felt.

## Sleep Characteristics

Did you know:

- One in four Canadians say they have problems sleeping.
- Women are twice as likely to have a sleeping problem than men.
- Each year, many car accidents are caused by sleepiness.
- About 20% of people working shift work have chronic sleep problems.
- Insomnia and excessive daytime drowsiness are considered predictors for seniors to be admitted to nursing homes.
- Poor sleepers are more likely to have chronic medical conditions.
- 1-2% of Canadians have insomnia.

The term insomnia is defined as a combination of taking more than 30 minutes to fall asleep, awakening throughout the night without being able to fall back asleep, and early morning awakening. The problem can be short term or can become chronic.

Ideally you want good sleep efficiency, which is the ratio of the time spent sleeping to the total time spent in bed; 95% or greater is ideal, meaning that once you go to bed you also go to sleep. Nocturnal sleep latency is the time it takes to fall asleep once the lights are turned off. The older you get, the less sleep efficiency you have and the greater your nocturnal sleep latency is.

Although eight hours is considered to be a "normal" amount of sleep, some people need less and others need more. As you age, your requirement lessens until you establish your normal. Elderly people don't actually need less sleep, it may be the distribution of sleep that changes with daytime naps.

## Sleep Hygiene

Sleep hygiene is your sleep habits. Taking a look at your sleep hygiene may point to something you are doing or not doing that interferes with your sleep.

Set a regular time to go to bed and a regular time to get up. If you are always changing your bedtime, your body doesn't know whether to be awake or asleep. An active lifestyle can make your body feel tired. However, your activities or exercise should be regular, moderate and not just prior to bed. Avoiding daytime naps may improve your nighttime sleep.

Heavy, fatty, or spicy foods should be avoided around bedtime as digestion and even indigestion can keep you awake. Avoid large quantities of fluids around bedtime to prevent nighttime trips to the bathroom. However, a light snack or even a glass of milk is fine; warm milk may actually help you sleep as milk contains l-tryptophan, which is a natural substance that produces some drowsiness.

Make your bedroom or sleep area as comfortable and conducive to sleep as possible. The area should be cool, dark, quiet, and used for sleeping only. When you use your bedroom to watch television or as a home office, you have defeated the purpose of the bedroom. And, watching television while you're trying to fall asleep can cause you to become excited and alert, defeating the relaxed feeling you are seeking.

If you aren't able to fall asleep within 20 to 30 minutes, get up, and move to another room or area and involve yourself in a relaxing activity such as reading a book or listening to relaxing music. There's no point in tossing and turning in bed. Sleep only as much as you need in order to feel refreshed – remember different people need different amounts of sleep.

## Medications for Sleep

Hypnotics are drugs that help you fall and stay asleep. The ideal hypnotic acts quickly and lasts through the night but is "gone" by morning. The most commonly used group of hypnotics are the benzodiazepines, which act on specific sites within your nervous system to send messages to your brain that you are drowsy or tired. They vary in their length of activity; however, the shorter acting ones are preferred because you won't be drowsy the next day.

Most hypnotics are only recommended for seven days with a maximum of four weeks. The idea is to find out what is causing your sleep disturbance and remedy it, rather than take sleeping tablets on a regular basis. Unfortunately, while hypnotics can improve the quantity of your sleep, they can interfere with sleep patterns and affect the quality of your sleep. With regular use, your body can develop a tolerance to hypnotics which can lead to risks of addiction and abuse. After long use of hypnotics, stopping them can result in rebound insomnia.

Non-prescription sleeping aids usually contain antihistamines, which have sedation as a side effect. Antidepressants can be used as these drugs have sedation as a side effect, but their main action is treatment of an underlying condition that interferes with sleep.

## Ask Your Helpful FHCP Pharmacist

**Provided by Marie Berry, Your  
Family Health Care Pharmacist**

**Q. Are there any non-drug approaches that can help me sleep?**

A. Behavioral treatments for sleeplessness are often successful. Examples include progressive muscle relaxation (which is tensing and relaxing muscles systematically while focusing on feelings of relaxation), listening to a metronome or "white noise" each night, and focusing on a single mental stimulus. For example, a word, phrase, image, or sound repeatedly.

**Q. Are there any natural sleep aids?**

A. Melatonin and L-tryptophan are the two most commonly used; however, before you consider using any sleep aid, you should attempt to identify the underlying reason for your sleeplessness. Melatonin is one of the hormones found naturally in the pineal gland, which is at the base of your brain. It seems to be involved in day-night cycles and may assist in sleep. L-tryptophan is found naturally in milk; drinking milk is often recommended to aid falling asleep. In the body L-tryptophan is converted to serotonin, a neurochemical involved in sleep. Remember, as with hypnotics, natural sleep aids are meant to be used only for the shortest time possible.

**Q. I've been told that all I need to get a good night's sleep is a little drink of brandy. Is this true?**

A. While any alcohol, brandy included, may increase your drowsiness, it is not a good sleep aid because it can disturb your sleep as you wake more often during the night and your sleep quality is reduced. You should never combine alcohol with any medication that causes drowsiness, including hypnotics. This is because you can increase your risk for added drowsiness, which can put you at risk for accidents. Alcohol increases the number of trips to the bathroom, which also means your sleep will be disturbed.

## A Healthy Position The Chemistry of Sleep

Sleep is a combination of external and internal stimuli that are responsible for the wake-sleep cycle. External stimuli are factors like sunlight, darkness, noise, or silence. Internal stimuli are factors such as large or spicy meals before bedtime, medical conditions or drugs that cause wakefulness, degree of physical tiredness, and even stress or worry.

When the appropriate stimuli occur, it is your hypothalamus that is responsible for inducing sleep. The hypothalamus is the oldest part of your brain and sits right above your spinal column. It is responsible for many automatic body functions, including sleep. The hypothalamus links hormones to neurochemicals in the nervous system.

Hypnotic drugs are effective because they target neurochemicals in your nervous system to send messages to the sleep centers in your brain. The benzodiazepines work because they induce sleep and reduce arousals during the night; however, they also reduce stage 4 (deep sleep) and suppress REM sleep. The ideal hypnotic acts quickly and lasts through the night but is "gone" by morning; however, most hypnotics are only recommended for seven days with a maximum of four weeks. The idea is to find out what is causing your sleep disturbance and remedy it, rather than taking sleeping tablets on a regular basis.

### Take The Check-Up Challenge

If you have indigestion that persists, get it checked; you may have a treatable condition or it may be a symptom of another condition. In the meantime you will have delayed diagnosis that causes other problems like sleeplessness.

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## Next Month's Feature!

APRIL 2013

### Cancer Prevention

About a quarter of Canadians die because of cancer and this number is increasing. However, there are ways you can reduce your risk: stop smoking, eat healthy, lose weight if you are overweight, reduce sun exposure, be physically active, follow screening recommendations, and avoid cancer-linked substances at home and at work. By taking action now, you can help prevent cancer.

In Next Month's Feature Find Out More About:

- Cancer demographics.
- Lifestyle factors that can impact cancer.
- Steps to prevent cancer.
- Knowing your risk factors for cancer.
- Cancer screening.

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