

# Insomnia

## WHAT IS INSOMNIA?

Insomnia is the perception or complaint of inadequate or poor-quality sleep because of one or more of the following:

- difficulty falling asleep
- waking up frequently during the night with difficulty returning to sleep
- waking up too early in the morning
- unrefreshing sleep

Insomnia is not defined by the number of hours of sleep a person gets or how long it takes to fall asleep. Individuals vary normally in their need for, and their satisfaction with, sleep. Insomnia may cause problems during the day, such as tiredness, a lack of energy, difficulty concentrating, and irritability.

Insomnia can be classified as transient (short term), intermittent (on and off), and chronic (constant). Insomnia lasting from a single night to a few weeks is referred to as transient. If episodes of transient insomnia occur from time to time, the insomnia is said to be intermittent. Insomnia is considered to be chronic if it occurs on most nights and lasts a month or more.

## WHAT CAUSES IT?

Certain conditions seem to make individuals more likely to experience insomnia.

Examples of these conditions include:

- advanced age (insomnia occurs more frequently in those over age 60)
- female gender
- a history of depression

If other conditions (such as stress, anxiety, a medical problem, or the use of certain medications) occur along with the above conditions, insomnia is more likely.

There are many causes of insomnia. Transient and intermittent insomnia generally occur in people who are temporarily experiencing one or more of the following:

- stress
- environmental noise
- extreme temperatures
- change in the surrounding environment
- sleep/wake schedule problems such as those due to jet lag
- medication side effects

Chronic insomnia is more complex and often results from a combination of factors, including underlying physical or mental disorders. One of the most common causes of chronic insomnia is depression. Other underlying causes include arthritis, kidney disease, heart failure, asthma, sleep apnea, narcolepsy, restless legs syndrome, Parkinson's disease, and hyperthyroidism. However, chronic insomnia may also be due to behavioral factors, including the misuse of caffeine, alcohol, or other substances; disrupted sleep/wake cycles as may occur with shift work or other nighttime activity schedules; and chronic stress.

In addition, the following behaviors have been shown to perpetuate insomnia in some people:

- **expecting to have difficulty sleeping and worrying about it**
- **ingesting excessive amounts of caffeine**
- **drinking alcohol before bedtime**
- **smoking cigarettes before bedtime**
- **excessive napping in the afternoon or evening**
- **irregular or continually disrupted sleep/wake schedules**

These behaviors may prolong existing insomnia, and they can also be responsible for causing the sleeping problem in the first place. Stopping these behaviors may eliminate the insomnia altogether.

### **WHO GETS INSOMNIA?**

Insomnia is found in males and females of all age groups, although it seems to be more common in females (especially after menopause) and in the elderly. The ability to sleep, rather than the need for sleep, appears to decrease with advancing age.

### **HOW IS IT DIAGNOSED?**

Patients with insomnia are evaluated with the help of a medical history and a sleep history. The sleep history may be obtained from a sleep diary filled out by the patient or by an interview with the patient's bed partner concerning the quantity and quality of the patient's sleep. Specialized sleep studies may be recommended, but only if there is suspicion that the patient may have a primary sleep disorder such as sleep apnea or narcolepsy.

### **HOW IS IT TREATED?**

Transient and intermittent insomnia may not require treatment since episodes last only a few days at a time. For example, if insomnia is due to a temporary change in the sleep/wake schedule, as with jet lag, the person's biological clock will often get back to normal on its own. However, for some people who experience daytime sleepiness and impaired performance as a result of transient insomnia, the use of short-acting sleeping pills may improve sleep and next-day alertness. As with all drugs, there are potential side effects. The use of over-the-counter sleep medicines is not usually recommended for the treatment of insomnia.

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### **OTHER SLEEP PUBLICATIONS AVAILABLE FROM THE NATIONAL HEART, LUNG, AND BLOOD INSTITUTE INFORMATION CENTER**

#### **Facts About Sleep Apnea—**

A four-page brochure that discusses sleep apnea and how it is treated. (NIH Publication No. 95-3798)

#### **Test Your Sleep I.Q.—**

This quiz tests your knowledge about sleep and sleep-related disorders. (NIH Publication No. 95-3797)

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Treatment for chronic insomnia consists of:

- **First, diagnosing and treating underlying medical or psychological problems.**
- **Identifying behaviors that may worsen insomnia and stopping (or reducing) them.**
- **Possibly using sleeping pills, although the long-term use of sleeping pills for chronic insomnia is controversial. A patient taking any sleeping pill should be under the supervision of a physician to closely evaluate effectiveness and minimize side effects. In general, these drugs are prescribed at the lowest dose and for the shortest duration needed to relieve the sleep-related symptoms. For some of these medicines, the dose must be gradually lowered as the medicine is discontinued because, if stopped abruptly, it can cause insomnia to occur again for a night or two.**
- **Trying behavioral techniques to improve sleep, such as relaxation therapy, sleep restriction therapy, and reconditioning.**

*Relaxation Therapy.* There are specific and effective techniques that can reduce or eliminate anxiety and body tension. As a result, the person's mind is able to stop "racing," the muscles can relax, and restful sleep can occur. It usually takes much practice to learn these techniques and to achieve effective relaxation.

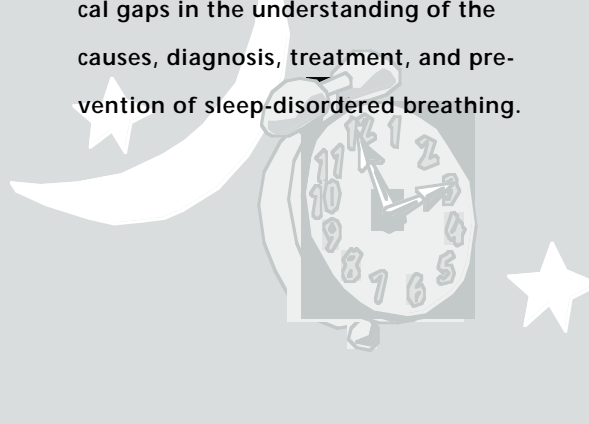
*Sleep Restriction.* Some people suffering from insomnia spend too much time in bed unsuccessfully trying to sleep. They may benefit from a sleep restriction program that at first allows only a few hours of sleep during the night. Gradually the time is increased until a more normal night's sleep is achieved.

*Reconditioning.* Another treatment that may help some people with insomnia is to recondition them to associate the bed and bedtime with sleep. For most people, this means not using their beds for any activities other than sleep and sex. As part of the reconditioning process, the person is usually advised to go to bed only when sleepy. If unable to fall asleep, the person is told to get up, stay up until sleepy, and then return to bed. Throughout this process, the person should avoid naps and wake up and go to bed at the same time each day. Eventually the person's body will be conditioned to associate the bed and bedtime with sleep.



**NATIONAL CENTER ON  
SLEEP DISORDERS  
RESEARCH (NCSDR)**

The mission of the NCSDR is to support research, training, and education about sleep disorders. The center is located within the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health. The NHLBI supports a variety of research and training programs focusing on cardiopulmonary disorders in sleep, designed to fill critical gaps in the understanding of the causes, diagnosis, treatment, and prevention of sleep-disordered breathing.



## WHERE TO GET MORE INFORMATION

Talk to your doctor if you are having trouble getting good, refreshing sleep each night. Together you can identify possible reasons for your sleeping difficulty and then try appropriate measures to correct the problem.

For additional information on sleep and sleep disorders, contact the following offices of the National Heart, Lung, and Blood Institute of the National Institutes of Health.

### ■ National Center on Sleep Disorders Research (NCSDR)

The NCSDR, located within the National Heart, Lung, and Blood Institute, supports research, scientist training, dissemination of health information, and other activities on sleep disorders and related concerns. The NCSDR also coordinates sleep research activities with other Federal agencies and with public and non-profit organizations.

National Center on Sleep Disorders  
Research  
Two Rockledge Centre  
Suite 7024  
6701 Rockledge Drive, MSC 7920  
Bethesda, MD 20892-7920  
(301) 435-0199  
(301) 480-3451 (FAX)

### ■ National Heart, Lung, and Blood Institute Information Center

The Information Center acquires, analyzes, promotes, maintains, and disseminates programmatic and educational information related to sleep disorders and sleep-disordered breathing. Write for a list of available publications or to order additional copies of this fact sheet.

NHLBI Information Center  
P.O. Box 30105  
Bethesda, MD 20824-0105  
(301) 251-1222  
(301) 251-1223 (FAX)



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