

## Causes of Insomnia

[http://www.holistic-online.com/Remedies/Sleep/sleep\\_insomnia-causes-1.htm](http://www.holistic-online.com/Remedies/Sleep/sleep_insomnia-causes-1.htm)

Insomnia can originate by any of a number of factors such as physical illness, a stress-filled lifestyle, excessive caffeine consumption, or chronic pain. It may simply be the result of poor sleeping habits, such as napping during the day and going to bed at irregular hours. Insomnia can often be linked to alcohol or drug abuse and to misuse of certain medications.

Causes of Insomnia - Summary	
<p><b>Sleep-Onset Insomnia</b></p> <ul style="list-style-type: none"> <li>• Anxiety or tension</li> <li>• Environmental change</li> <li>• Emotional arousal</li> <li>• Fear of insomnia Phobia of sleep</li> <li>• Disruptive environment</li> <li>• Pain or discomfort</li> <li>• Caffeine Alcohol</li> </ul>	<p><b>Sleep-Maintenance Insomnia</b></p> <ul style="list-style-type: none"> <li>• Depression</li> <li>• Environmental change</li> <li>• Nocturnal myoclonus</li> <li>• Hypoglycemia</li> <li>• Parasomnias               <ul style="list-style-type: none"> <li>○ sleep apnea,</li> <li>○ restless-legs syndrome,</li> <li>○ etc.</li> </ul> </li> <li>• Pain or discomfort Drugs Alcohol</li> </ul>

### Psychological factors

Psychological factors account for about half of all insomnias. Numerous mental and emotional factors can precipitate sleep disorders, especially insomnia. These include grief, depression, anxiety, fear, and excitement.

Anxiety and depression are two common causes of insomnia. If the insomnia is simply due to a short-term reaction to a situation in one's life, the insomnia will normally disappear as soon as the situation changes. It is rare to see someone who has a severe case of insomnia due to purely emotional factors.

Sleep problems are usually a biochemical problem. Biochemical breakdown can take place in many ways. For example, if your digestive system is stressed and unable to digest protein, the amino acids which affect neurotransmission will not be available to your brain. You can become ill emotionally without having anything emotionally stressful going on in your life.

### Vulnerability to insomnia

Some people are more likely than others to experience insomnia during times of stress.

### Persistent stress

Stress plays a pivotal role in insomnia. Causes of stress such as a troubled marriage, a chronically ill child, or an unrewarding career can contribute to poor sleep.

## Medical Problems

The following is a list of some common medical problems that can disturb sleep.

- Angina, a condition in which the heart receives insufficient oxygen, thereby causing pain that can disturb sleep
- Asthma, bronchitis, and emphysema, conditions that disturb sleep by interfering with breathing
- Allergies, congestion, or coughing
- Indigestion, reflux, or ulcers, which are gastrointestinal conditions that disrupt sleep by causing heartburn or acid regurgitation; these conditions can be treated with dietary changes and medication
- Bladder problems such as frequent urination
- Arthritis and chronic pain conditions
- Headaches
- Epilepsy, which causes abnormal electrical activity in the brain that can disturb sleep
- Hyperthyroidism, a condition caused by an over-productive thyroid gland
- Kidney disease
- Diabetes and hypoglycemia
- Dementia or Alzheimer's disease, both of which can cause nighttime agitation, confusion, and insomnia

## Medical Conditions Specific to Women

There are a number of women's medical conditions that can disturb sleep.

- Insomnia is common during the last trimester of pregnancy. This can be caused by the stress of the pregnancy and anticipation of the birth or by fetal movements and the physical discomfort of pregnancy.
- Menopause can disrupt women's sleep. The hormonal changes associated with menopause may be one cause of these sleep difficulties; another is the hot flashes of menopause, which result in sensations of increased body temperature and night sweats that are disruptive to sleep. Many women also experience emotional changes and depression during menopause that can contribute to insomnia. See: [Menopause Infocenter in Holisticonline.com](http://Menopause Infocenter in Holisticonline.com)
- Premenstrual syndrome (PMS) is another medical condition that can disrupt sleep. For some women, sleep difficulties coincide with the onset of the menses and the negative mood that can occur at this time.

## Breathing Disorders

Certain disorders can cause repeated interruptions in breathing during sleep that can disrupt the sleep dozens or even hundreds of times a night. These pauses can be as short as 10 seconds and the sleeper may not be aware of it in the morning. These disruptions produce restless sleep.

Examples are sleep apnea, periodic leg movements, gastroesophageal reflux and waking brain activity that persists during sleep.

**Pain**

Disorders such as arthritis, angina, lower back pain, fibromyalgia, and headache may upset sleep and waking hours.

**Physiological Factors**

Adrenal function can have a significant effect on sleep patterns. In particular, high nighttime levels of cortisone are associated with many sleep disorders. Cortisone is a hormone secreted by the adrenal glands in the morning, or during periods of wakefulness and activity.

Insomnia can result from any number of conditions that interrupt the sleeping process, including stomach problems or bladder ailments. Periodic leg movement syndrome is sometimes triggered by a rheumatic disorder or nervous system illness. Sleep apnea may be linked to obesity, particularly if the obese patient also has lung problems from chronic smoking or heart disease.

**Prescription and Over-the-Counter Drugs**

A significant number of prescription and over-the-counter (OTC) drugs can disturb sleep either by causing stimulant or withdrawal effects. Drugs can also impair the quality of your sleep by suppressing deep sleep or dream sleep.

Here are some common prescription and OTC medications that can disturb sleep.

- Analgesics that contain caffeine, such as Anacin and Excedrin

- Prescription diet pills

- Steroids

- Beta blockers and some other drugs used for treating high blood pressure

- Nasal decongestants that contain stimulants

- Asthma medications that have stimulating effects

- Thyroid hormones

- Some antidepressant medications  
Drugs for Parkinson's disease

See the complete list - [Drugs Associated With A Higher Incidence Of Sleeplessness](#)

If you are taking prescription drugs, ask your doctor or your pharmacist if the drugs may be disturbing your sleep and whether modifying the medication dose or even switching to another related medication that won't adversely affect your sleep is possible. In some cases, simply taking the medication earlier may eliminate sleep problems. If you are taking an OTC, read the medication label carefully. Ask your pharmacist if you are uncertain if it contains sleep-disrupting ingredients.

**Illicit Drugs**

Illicit drugs such as cocaine and amphetamines have powerful stimulant effects that can make it harder to fall asleep. These drugs also compromise sleep quality by reducing deep sleep and dream sleep. Because these drugs are highly addictive, they can also cause withdrawal effects that affect sleep.

Marijuana can have variable effects on sleep. For some, marijuana can have relaxing, sedating properties; for others, it can act as a stimulant and make it harder to fall asleep. Long-term

marijuana use can impair sleep by REM sleep.

### **Misuse or overuse of sleeping Pills**

If used every night, sleeping pills stop being effective after a few weeks. Don't cut off their use abruptly, though. When their use is stopped suddenly, sleep can be temporarily worsened. Cut back on the use of sleeping pills gradually under the supervision of your healthcare provider.

## **Mental Health Problems That Contribute To Insomnia**

### **Depression**

Insomnia, particularly sleep-maintenance insomnia and early morning awakening, is a hallmark symptom of major depression. Some depressed individuals may instead exhibit excessive sleep, called hypersomnia.

Depressed people exhibit a number of other sleep disturbances, including reduced deep sleep, increased light sleep, and excessive REM sleep. They enter REM sleep earlier in the night and spend a greater percentage of time in REM sleep than nondepressed people. Recent research also suggests that the dream content of depressed people is more depressing than that of nondepressed people.

These findings concerning REM sleep disturbances in depression, coupled with the fact that antidepressant drugs work in part by suppressing REM sleep, suggest that abnormalities in dream sleep may be a cause of major depression.

### **Anxiety**

Anxiety is another prevalent mental health problem that can disturb sleep. Anxiety is a feeling of apprehension, worry, or fear. When we experience too much anxiety, our sleep, work, sense of pleasure, and relationships can suffer.

### **Post-Traumatic Stress Disorder (PTSD)**

Post-traumatic stress disorder (PTSD) is another mental health problem that can cause insomnia. In PTSD, a traumatic event (such as physical or sexual abuse, war, or a natural disaster) is continually re-experienced emotionally. This chronic "reliving" of the trauma results in fear, anxiety, physical stress responses, insomnia, and nightmares.

### **Learned Insomnia**

When you are under stress, you tend to sleep poorly. However, many people start worrying that they are not getting enough sleep. They worry about not being able to function effectively during the day. This creates anxiety that leads to further insomnia. So, the stress induced insomnia tend to feed on itself on people who are susceptible to worrying.

### **Conventional Treatment**

The first task is to determine the exact cause of insomnia. Insomnia may be:

- A sign of depression
- A side effect of medication
- A reaction to stress
- A consequence of poor sleep habits
- A response to pain or anxiety

- A combination of these and other factors.

In most cases, more than one cause for insomnia is likely. Thus, a careful evaluation and diagnosis are important before strategies for treatment can be determined. The underlying cause or causes should be treated, if possible.

In considering what medication would be appropriate, physicians will consider the patient's age, medical condition, use of alcohol, and need to function when awakened during his or her normal sleep time.

### **Transient Insomnia**

Transient insomnia, which may occur during travel, usually disappears when you return to a regular sleep pattern. The usual treatment consists of educating the patients about sleep and sleep hygiene and follow up with temporary drug therapy.

### **Education**

Provide understandable information about sleep, the causes of insomnia, and healthy sleep practices. Information about basic sleep needs, the influence of circadian rhythms on sleep, and the effects of aging help establish realistic expectations and goals for treatment. Tips to help patients obtain good sleep are generally provided. Discuss with the patient what is causing the insomnia and how to manage it. Awareness of what is the cause of insomnia and how to manage it should help resolve the current episode and prevent chronic symptoms and relapse in the future.

### **Medication (Drug Therapy)**

If education and sleep hygiene measures are not sufficient to combat insomnia, a short-term treatment plan will be devised with sleep medication. (See: The medications most commonly prescribed for insomnia) Newer prescription drugs such as nonbenzodiazepine hypnotics have been found to be effective for improving sleep with minimal morning sedation.

Zaleplon is a prescription medication that significantly reduces time to sleep onset in adults (at 10 mg) and elderly (at 5 mg) insomniacs.

Zolpidem is another prescription medication that is effective for both sleep onset and sleep maintenance insomnia. It should be used only at the beginning of the night. There is a greater potential for morning residual effects and some rebound insomnia immediately following abrupt withdrawal from dosages greater than 10 mg.

If these medications are found to be ineffective, then benzodiazepines may be used. Antidepressant medications may also be used especially when the insomnia is associated with mood disorders.

### **Chronic Insomnia**

Chronic insomnia requires a thorough physical examination, alteration of some life habits, and perhaps psychotherapy to identify a hidden cause. Cognitive Behavioral therapy and drug therapy, if necessary, are the preferred approach in this case.

**Education**

Education about good sleep practices is useful, but not sufficient, for treating chronic insomnia.

**Cognitive behavioral therapy (CBT)**

Cognitive behavioral therapy has been shown to be a highly effective approach for the treatment of primary insomnia. Cognitive behavioral therapy for insomnia typically involves:

- Stimulus control
- Sleep restriction
- Relaxation strategies
- Cognitive restructuring

In a recent study of CBT versus benzodiazepine treatment, CBT was found to be superior at long-term (2 years) follow-up.

**Stimulus control**

Stimulus control is a set of instructions aimed at undoing conditioned arousal at bedtime by reassociating the bedroom with rapid sleep onset.

Typical instructions are as follows:

- Go to bed only when you are sleepy.
- If you do not fall asleep within 15 minutes or wake up and can't resume sleep within 15 minutes, leave the bedroom and return only when sleepy again. Repeat as often as necessary.
- Use the bedroom only for sleep and sex. Do not read, watch TV, work, or eat in bed.
- Get up at the same time every morning, including weekends.
- Avoid daytime napping.

**Sleep restriction**

Sleep restriction involves curtailing the amount of time the patient spends in bed to increase the efficiency of sleep.

First, restrict the time allowed in bed to equal the average amount of time the patient actually spends sleeping.

After each week, the percent of time spent sleeping in bed is calculated. This is called sleep efficiency (SE) index.

sleep efficiency (SE) index = time spent asleep/time spent in bed x 100

If SE is greater than 85%, an additional 15 to 20 minutes of time in bed is added to the beginning of the night. If SE is less than 85%, time in bed is further restricted by 15 to 20 minutes. Reducing the time in bed to less than 5 hours is not generally recommended.

Sleep restriction is very effective if followed closely. Needs discipline on the part of patient for its success.

**Relaxation**

Various relaxation techniques are useful for inducing sleep. Examples are progressive muscle relaxation, diaphragmatic breathing, and nonguided imagery.

**Cognitive restructuring**

Cognitive therapy is used to identify dysfunctional beliefs and attitudes patients may have about their sleep and replace them with more adaptive substitutes.

Cognitive restructuring can be used to overcome all concerns regarding sleep and eliminate anxieties associated with poor sleep or inability to sleep.

**Light phase shift**

Used for insomnia associated with circadian rhythm disturbances. The use of timed exposure to bright light can be very effective in shifting the timing of the major sleep period.

Evening light is indicated if you sleep too early and wake up early (phase advance syndrome) and morning light is used if you sleep late and wake up late (phase delay syndrome). Natural sunlight and bright-light boxes can be used.

**Hypnotic treatment**

This is used for chronic insomnia only if non- pharmacologic approaches have been exhausted or as a complement to these treatments.

- Long-term administration of low doses of zaleplon or zolpidem.
- Benzodiazepines may be useful in patients not prone to abuse, dependence, or dose escalation. It should be monitored carefully.
- Antidepressant medications are used when the insomnia is associated with mood disorders.

**Medications Commonly Used for the Treatment of Insomnia**

Nonbenzodiazepine, selective benzodiazepine receptor agonists

**Zaleplon**

Common Initial Dose (half-dose is generally recommended in elderly): 10 mg FDA Approved  
 Maximum Daily Dose 20 mg When Residual Effects during  
 none Withdrawal Effects and Rebound

**Zolpidem**

Common Initial Dose (half-dose is generally recommended in elderly) 10 mg FDA  
 Approved Maximum Daily Dose 10 mg When: at bedtime - Residual Effects  
 minimal Withdrawal Effects and

Traditional benzodiazepine hypnotics

**Triazolam**

Common Initial Dose (half-dose is generally recommended in elderly) 0.25 mg FDA Approved  
 minimal to moderate Maximum Dose: 0.75 mg - Residual Effects -  
 mild to severe, depending on dose, duration of use, and individual Withdrawal Effects

**Temazepam** Common Initial Dose (half-dose is generally recommended in elderly) 15 mg  
 minimal to moderate  
 mild to severe, depending on dose, duration of use, and individual  
 - FDA Approved Maximum Daily Dose 30 mg  
 Residual Effects - moderate  
 Withdrawal Effects - mild to moderate

**Flurazepam** Common Initial Dose (half-dose is generally recommended in elderly) 15-30 mg  
 moderate  
 depending on dose, duration of use, and individual  
 - FDA Approved Maximum Daily Dose 30 mg  
 Residual Effects - moderate  
 Withdrawal Effects - moderate  
 Rebound Insomnia

**Anxiolytic benzodiazepines frequently used as hypnotics (off-label)**

**Clonazepam** Common Initial Dose (half-dose is generally recommended in elderly) 0.5 mg  
 bedtime only Residual Effects - moderate  
 Abrupt Discontinuation: mild to severe, depending on dose, duration of use, and individual  
 - FDA Approved Maximum Daily Dose 1 mg  
 Residual Effects - moderate  
 Withdrawal Effects - moderate

**Lorazepam** Common Initial Dose (half-dose is generally recommended in elderly) 1 mg  
 bedtime only Residual Effects - minimal to moderate  
 Insomnia at Abrupt Discontinuation: mild to severe, depending on dose, duration of use, and individual  
 - FDA Approved Maximum Daily Dose 6 mg  
 Residual Effects - minimal to moderate  
 Withdrawal Effects - mild to moderate

**Alprazolam** Common Initial Dose (half-dose is generally recommended in elderly) 0.25 mg  
 bedtime only Residual Effects - minimal to moderate  
 Insomnia at Abrupt Discontinuation: mild to severe, depending on dose, duration of use, and individual  
 - FDA Approved Maximum Daily Dose 1 mg  
 Residual Effects - minimal to moderate  
 Withdrawal Effects - moderate

**Sedating antidepressants frequently used as hypnotics (off-label)**

**Trazodone** Common Initial Dose (half-dose is generally recommended in elderly) 50 mg  
 bedtime only Residual Effects - moderate  
 Abrupt Discontinuation: variable  
 - FDA Approved Maximum Daily Dose 350 mg  
 Residual Effects - moderate  
 Withdrawal Effects - mild to moderate

**Amitriptyline** Common Initial Dose (half-dose is generally recommended in elderly) 50 mg  
 bedtime only Residual Effects - moderate  
 Abrupt Discontinuation: variable-can be a problem at higher doses  
 - FDA Approved Maximum Daily Dose 150 mg  
 Residual Effects - moderate  
 Withdrawal Effects - moderate

**Doxepin** Common Initial Dose (half-dose is generally recommended in elderly) 50 mg  
 Approved Maximum Daily Dose 300 mg divided (for depression) When - at bedtime only  
 Discontinuation: variable-can be problematic at higher doses  
 - Residual Effects - moderate  
 Withdrawal Effects - moderate  
 FDA Approved

**Fluvoxamine** Common Initial Dose (half-dose is generally recommended in elderly) 50 mg



mg  
 disorder) W hen - at bedtime only Residual E ffects - moderate  
 Rebound Insomnia at Abrupt Discontinuation: variable

r FDA Approved M axim um D aily D ose 300 m g

W ithdraw al E ffects

**Mirtazapine** Common Initial Dose (half-dose is generally recommended in elderly) 15  
 mg  
 only Residual E ffects - moderate  
 Discontinuation: variable

r FDA Approved

M axim um D aily D ose 45 m g (for depressions)

W hen - at bedtime

W ithdraw al E ffects

**Nefazodone** Common Initial Dose (half-dose is generally recommended in elderly) 100  
 mg  
 bedtime only Residual E ffects - minimal to moderate  
 Insomnia at Abrupt Discontinuation: variable

r FDA Approved M axim um D aily D ose 100 m g

W ithdraw al E ffects

**Other sedating agents**

**Diphenhydramine** Common Initial Dose (half-dose is generally recommended in elderly) 25  
 mg  
 - minimal to moderate  
 minimal

- FDA Approved M axim um D aily D ose 100 m g

W ithdraw al E ffects

**Gabapentin** Common Initial Dose (half-dose is generally recommended in elderly) 300  
 mg  
 only Residual E ffects - minimal to moderate  
 Abrupt Discontinuation: variable

r FDA Approved M axim um D aily D ose 300 m g

W ithdraw al E ffects

**OTC Sleep-Promoting Drugs**

Examples of OTC sleep-promoting drugs are the use of sedating antihistamines alone or in combination with analgesics.

**Common Side Effects Of Prescription Or Over-The-Counter Sleep Aids**

- Fatal overdose, especially when combined with alcohol or with other drugs that affect your central nervous system
- Impaired coordination, memory, driving skills, and thinking
- Interference with breathing
- Physical or psychological dependence (unable to sleep without the medication.)
- Tolerance (Need to take larger and larger doses to achieve the same effect.)
- Potential damage to kidney, liver, and lungs
- Confusion, hallucinations, and similar disturbances, particularly for the elderly