Sleeping Pills and Natural Sleep Aids

Prescription and Over-the-Counter Products

It’s the middle of the night, and you’re staring at the ceiling, thinking about work, or bills, or the kids. Sleep just won’t come, so you reach for a sleeping pill. But did you know that sleep medications are rarely meant for more than short-term use? They can cause dependence and tolerance, and the benefits don’t always outweigh the risks. Learn what you need to know about the side effects and safety concerns of common sleep medications—as well as effective insomnia treatments that don’t come in pill form.

Are sleeping pills or sleep aids right for you?

When you’re desperate to get some rest, it’s tempting to head for the medicine cabinet for relief. And you may get it in the moment. But if you regularly have trouble sleeping, that’s a red flag that something’s wrong. It could be something as simple as too much caffeine or viewing electronic screens late at night. Or it may be a symptom of an underlying medical or psychological problem. But whatever it is, it won’t be cured with sleeping pills. At best, sleeping pills are a temporary band aid. At worst, they’re an addictive crutch that can make insomnia worse in the long run.

That doesn’t mean that you should never use medication, but it’s important to weigh the benefits against the risks. In general, sleeping pills and sleep aids are most effective when used sparingly for short-term situations, such as traveling across time zones or recovering from a medical procedure. If you choose to take sleeping pills over the long term, it is best to use them only on an infrequent, “as needed,” basis to avoid dependence and tolerance.

Risks and side effects of sleeping pills

All prescription sleeping pills have side effects, which vary depending on the specific drug,
the dosage, and how long the drug lasts in your system. Common side effects include prolonged drowsiness the next day, headache, muscle aches, constipation, dry mouth, trouble concentrating, dizziness, unsteadiness, and rebound insomnia.

**Other risks of sleeping pills include:**

**Drug tolerance.** You may, over a period of time, build up a tolerance to sleep aids, and you will have to take more and more for them to work, which in turn can lead to more side effects.

**Drug dependence.** You may come to rely on sleeping pills to sleep, and will be unable to sleep or have even worse sleep without them. Prescription pills, in particular, can be very addictive, making it difficult to stop taking them.

**Withdrawal symptoms.** If you stop the medication abruptly, you may have withdrawal symptoms, such as nausea, sweating, and shaking.

**Drug interactions.** Sleeping pills can interact with other medications. This can worsen side effects and sometimes be dangerous, especially with prescription painkillers and other sedatives.

**Rebound insomnia.** If you need to stop taking sleeping pills, sometimes the insomnia can become even worse than before.

**Masking an underlying problem.** There may be an underlying medical or mental disorder, or even a sleep disorder, causing your insomnia that can’t be treated with sleeping pills.

**Some serious risks of sleeping pills**

Sedative-hypnotic medications (benzodiazepines and non-benzodiazepines) can cause severe allergic reaction, facial swelling, memory lapses, hallucinations, suicidal thoughts or actions, and complex sleep-related behaviors like sleep-walking, sleep-driving (driving while not fully awake, with no memory of the event) and sleep-eating (eating in the middle of the night with no recollection, often resulting in weight-gain). If you experience any unusual sleep-related behavior, consult your doctor immediately.

**Over-the-counter (OTC) sleep aids and sleeping pills**

Standard over-the-counter sleeping pills rely on antihistamines as their primary active ingredient to promote drowsiness.
Common over-the-counter sleep medications include:

- Diphenhydramine (found in brand names like Nytol, Sominex, Sleepinal, Compoz)
- Doxylamine (brand names such as Unisom, Nighttime Sleep Aid)

Some other OTC sleep aids combine antihistamines with the pain reliever Acetaminophen (found in brand names like Tylenol PM and Aspirin-Free Anacin PM). Others, such as NyQuil, combine antihistamines with alcohol.

The problem with antihistamines is that their sedating properties often last well into the next day, leading to a next-day hangover effect. When used long-term, they can also cause forgetfulness and headaches. Because of these issues, sleep experts advise against their regular use.

**Common side effects of antihistamine sleeping pills:**

- Moderate to severe drowsiness the next day
- Dizziness and forgetfulness
- Clumsiness, feeling off balance
- Constipation and urinary retention
- Blurred vision
- Dry mouth and throat
- Nausea

**Prescription sleep medications**

There are several different types of prescription sleeping pills, classified as *sedative hypnotics*. In general, these medications act by working on receptors in the brain to slow down the nervous system. Some medications are used more for inducing sleep, while others are used for staying asleep. Some last longer than others in your system (a longer *half-life*), and some have a higher risk of becoming habit forming.

**Benzodiazepine sedative hypnotic sleeping pills**

Benzodiazepines are the oldest class of sleep medications still commonly in use. Benzodiazepines as a group are thought to have a higher risk of dependence than other insomnia sedative hypnotics and are classified as controlled substances. Primarily used to treat anxiety disorders, benzodiazepines that have been approved to treat insomnia include estazolam (brand name ProSom), flurazepam (Dalmane), quazepam (Doral), temazepam (Restoril), and triazolam (Halcion).
Drawbacks to benzodiazepine sleeping pills:

You can become both physically and psychologically dependent on benzodiazepines. When you’re on the pills for a period of time, you may believe that you can’t sleep without them, and once you stop taking them, you may actually experience physical withdrawal symptoms like anxiety and rebound insomnia.

Sleeping pills can lose their effectiveness if used on a nightly basis, because the brain receptors become less sensitive to their effects. In as little as three to four weeks, benzodiazepines can become no more effective than a sugar pill.

The overall quality of your sleep can be reduced, with less restorative deep sleep and REM sleep.

You may experience next day cognitive slowing and drowsiness (the hangover effect), which may be even worse than the sluggishness you feel from actual sleep deprivation.

Insomnia returns once you stop, even if the medication is effective while taking it. As with the use of all sleeping pills, rather than dealing with your insomnia, you’re merely postponing the problem.

There may be a link to dementia. While it’s currently under investigation, there is concern that using benzodiazepines may contribute to the development of dementia.

Non-benzodiazepine sedative hypnotic sleeping pills

Some newer medications don’t have the same chemical structure as a benzodiazepine, but act on the same area in the brain. They are thought to have fewer side effects, and less risk of dependency, but are still considered controlled substances. They include zalepon (Sonata), zolpidem (Ambien), and eszopiclone (Lunesta), which have been tested for longer-term use, up to six months.

Drawbacks to non-benzodiazepine sleeping pills:

Generally, non-benzodiazepines have fewer drawbacks than benzodiazepines, but that doesn’t make them suitable for everyone. Some may find this type of sleep medication ineffective at helping them sleep, while the long-term effects remain unknown. The U.S. Food and Drug Administration (FDA) recently directed the manufacturers of Ambien and similar sleeping pills to lower the standard dosage due to the serious risk of morning grogginess while driving, especially in women patients. Other side effects include:
Drug tolerance
Rebound insomnia
Headaches, dizziness, nausea, difficulty swallowing or breathing
In some cases, dangerous sleep-related behaviors such as sleep-walking, sleep-driving, and sleep-eating
New or worsening depression; suicidal thoughts or actions

Melatonin receptor agonist hypnotic sleeping pills

Ramelteon (Rozerem) is the newest type of sleep medication and works by mimicking the sleep regulation hormone melatonin. It has little risk of physical dependency but still has side effects. It is used for sleep onset problems and is not effective for problems regarding staying asleep.

Ramelteon’s most common side effect is dizziness. It may also worsen symptoms of depression and should not be used by those with severe liver damage.

Antidepressants used as sleeping pills

The FDA has not approved antidepressants for the treatment of insomnia, nor has their use been proven effective in treating sleeplessness. However, some antidepressants are prescribed off-label due to their sedating effects. As with all depression medication, there is a small but significant risk of suicidal thoughts or worsening of depression, particularly in children and adolescents.

Herbal and dietary sleep supplements that may help

Go the drugstore and you’ll see dozens of so-called “natural” sleep supplements. The FDA doesn’t regulate dietary supplements for safety, quality, effectiveness, or even truth in labeling, so it’s up to you to do your due diligence. Although the evidence is mixed, the following supplements have the most research backing them up as insomnia treatments.

Valerian. Valerian is a sedating herb that has been used since the second century A.D. to treat insomnia and anxiety. It is believed to work by increasing brain levels of the calming chemical GABA. Although the use of valerian for insomnia hasn’t been extensively studied, the research shows promise and it is generally considered to be safe and non-habit forming. It works best when taken daily for two or more weeks.

Melatonin. Melatonin is a naturally occurring hormone that increases at night. It is triggered by darkness and its levels remain elevated throughout the night until suppressed by the light of morning. Although melatonin does not appear to be particularly effective for treating most sleep disorders, it can help sleep problems caused by jet lag and shift work.
Simple exposure to light at the right time, however, might be just as effective. If you take melatonin, be aware that it can interfere with certain blood pressure and diabetes medications. It’s best to stick with low doses—1 to 3 milligrams for most people—to minimize side effects and next-day drowsiness.

**Chamomile.** Many people drink chamomile tea for its gentle sedative properties, although it may cause allergic reactions in those with plant or pollen allergies. To get the full sleep-promoting benefit, bring water to a boil, then add 2-3 tea bags (or the equivalent of loose-leaf tea), cover with a lid, and brew for 10 minutes.

**Tryptophan.** Tryptophan is a basic amino acid used in the formation of the chemical messenger serotonin, a substance in the brain that helps tell your body to sleep. L-tryptophan is a common byproduct of tryptophan, which the body can change into serotonin. Some studies have shown that L-tryptophan can help people fall asleep faster. Results, however, have been inconsistent.

**Kava.** Kava has been shown to improve sleep in people with stress-related insomnia. However, kava can cause liver damage, so it isn’t recommended unless taken under close medical supervision.

Other herbs that have been found to have a calming or sedating effect include lemon balm, passionflower, and lavender. Many natural sleep supplements, such as MidNite and Luna, use a combination of these ingredients to promote sleep.

**Natural doesn’t mean safe**

While some remedies, such as lemon balm or chamomile tea are generally harmless, others can have more serious side effects and interfere with or reduce the effectiveness of prescribed medications. Valerian, for example, can interfere with antihistamines and statins. Do your research before trying a new herbal remedy and talk with your doctor or pharmacist if you have any pre-existing conditions or prescriptions that you take.

**Tips for safer use of sleeping pills**

If you decide to try sleeping pills or sleep aids, keep the following safety guidelines in mind.

**Never mix sleeping pills with alcohol or other sedative drugs.** Alcohol not only disrupts sleep quality, but it increases the sedative effects of sleeping pills. The combination can be quite dangerous—even deadly.

**Only take a sleeping pill when you will have enough time for at least 7 to 8 hours of**
sleep. Otherwise you may feel very drowsy the next day.

Don’t take a second dose in the middle of the night. It can be dangerous to double up on your dosage, and with less time for the medication to clear your system it may be difficult to get up the next morning and shake off grogginess.

Start with the lowest recommended dose. See how the medication affects you and the types of side effects you experience.

Avoid frequent use. To avoid dependency and minimize adverse effects, try to save sleeping pills for emergencies, rather than nightly use.

Never drive a car or operate machinery after taking a sleeping pill. This tip is especially important when you start using a new sleep aid, as you may not know how it will affect you.

Carefully read the package insert that comes with your medication. Pay careful attention to the potential side effects and drug interactions. Many common medications, including antidepressants and antibiotics, can cause dangerous interactions with both prescription and over-the-counter sleeping pills. For many sleeping pills, certain foods such as grapefruit and grapefruit juice must also be avoided.

Talk to your doctor or pharmacist about:

- Other medications and supplements you are taking. Many common medications, including antidepressants and antibiotics, can cause dangerous interactions with both prescription and over-the-counter sleeping pills. Herbal and dietary supplements and non-prescription medications such as pain relievers and allergy medicines may also interfere.

- Other medical conditions you have. Some sleep medications can have serious side effects for people with medical problems such as high blood pressure, liver problems, glaucoma, depression, and breathing difficulties.

- Specific instructions for increasing, decreasing and/or terminating use. It’s important to follow usage directions closely. Increasing your dose may pose risks, but decreasing your use can also cause problems if done too quickly. In some cases, stopping medication abruptly can cause uncomfortable side effects and even rebound insomnia.

For better sleep, opt for healthy habits, not pills

Research has shown that changing your lifestyle and sleep habits is the best way to combat
insomnia. Even if you decide to use sleeping pills or medications in the short term, experts recommend making changes to your lifestyle and bedtime behavior as a long-term remedy to sleep problems. Behavioral and environmental changes can have more of a positive impact on sleep than medication, without the risk of side effects or dependence.

**Relaxation techniques as an alternative to sleeping pills**

Relaxation techniques that can relieve stress and help you sleep include simple meditation practices, progressive muscle relaxation, yoga, tai chi, and the use of deep breathing. With a little practice, these skills can help you unwind at bedtime and improve your sleep more effectively than a sleeping pill or sleep aid. Try:

**A relaxing bedtime routine.** Turn off screens at least one hour before bed and focus on quiet, soothing activities, such as reading, gentle yoga, or listening to soft music instead. Keep the lights low to naturally boost melatonin.

**Abdominal breathing.** Most of us don’t breathe as deeply as we should. When we breathe deeply and fully, involving not only the chest, but also the belly, lower back, and ribcage, it can actually help the part of our nervous system that controls relaxation. Close your eyes and try taking deep, slow breaths, making each breath even deeper than the last. Breathe in through your nose and out through your mouth. Make each exhale a little longer than each inhale.

**Progressive muscle relaxation** is easier than it sounds. Lie down or make yourself comfortable. Starting with your feet, tense the muscles as tightly as you can. Hold for a count of 10, and then relax. Continue to do this for every muscle group in your body, working your way up to the top of your head.

**Exercise is a powerful sleep aid**

Studies have shown that exercise during the day can improve sleep at night. When we exercise, we experience a significant rise in body temperature, followed a few hours later by a significant drop. This drop in body temperature makes it easier for us to fall and stay asleep. The best time to exercise is late afternoon or early evening, rather than just before bed. Aim for at least 30 minutes four times a week. Aerobic exercises are the best to combat insomnia as they increase the amount of oxygen that reaches the blood.

**Cognitive behavioral therapy (CBT) beats sleeping pills**

Many people complain that frustrating, negative thoughts and worries prevent them from sleeping at night. Cognitive-behavioral therapy (CBT) is a form of psychotherapy that treats problems by
modifying negative thoughts, emotions, and patterns of behavior. A study at Harvard Medical School even found that CBT was more effective at treating chronic insomnia than prescription sleep medication—but without the risks or side effects. CBT can help to relax your mind, change your outlook, improve your daytime habits, and set you up for a good night’s sleep.

Recommended reading

Improving Sleep: A guide to a good night’s rest – Harvard Medical School Special Health Report

Sleep Medications – Including guidelines on using sleep medications and sleeping pills safely and properly. (American Academy of Sleep Medicine)

Prescription sleeping pills: What’s right for you? – Common uses of sleeping pills, sleep medications, and other effective treatments for insomnia. (Mayo Clinic)

Ten Safety Tips for Taking Sleeping Pills for Insomnia – Guidelines for how to be safe when taking sleeping pills. (American Academy of Sleep Medicine)

Sleep Aids: Understand Over-the-Counter Options – Review of OTC sleep aids and herbal supplements. (Mayo Clinic)

Melatonin and Sleep – Melatonin’s effects on insomnia. (National Sleep Foundation)

Valerian – Use of valerian for treating insomnia and other sleep disorders. (Office of Dietary Supplements, National Institutes of Health)

Insomnia treatment: Cognitive behavioral therapy instead of sleeping pills – Benefits of CBT versus popular sleep medications. (Mayo Clinic)

Authors: Melinda Smith, M.A., Lawrence Robinson, and Robert Segal, M.A. Last updated: October 2018