Managing Insomnia Disorder

A Review of the Research for Adults

Consumer Summary ARCHIVED | Aug 1, 2017

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Archived: This report is greater than 3 years old. Findings may be used for research purposes, but should not be considered current.

Is This Information Right for Me?

This information is right for you if:

- Your health care professional said you have insomnia disorder (said "in-SOM-nee-ah"). Insomnia disorder is a long-term condition in which a person has trouble falling asleep or staying asleep, and the sleeping problem lasts at least 3 months. Insomnia disorder can last many years.
- You are age 18 or older. This information is from research on adults.

This information may not be helpful for you if:

- Your insomnia is caused by another medical condition, such as a mental health disorder (for example, major depressive disorder, bipolar disorder, or post-traumatic stress disorder), a neurological disorder (for example, Parkinson's disease or Alzheimer's disease), fibromyalgia (a disorder that causes muscle pain), or rheumatoid arthritis (a disorder that causes pain and swelling in the joints).
- Your insomnia is caused by pregnancy or menopause.

What will this summary tell me?

This summary will answer these questions:

- What is insomnia disorder?
- How is insomnia disorder diagnosed?
- How is insomnia disorder treated?
  - What have researchers found about cognitive behavioral therapy and medicines for insomnia?
  - What are possible side effects of medicines for insomnia disorder?
- What should I think about when deciding on treatment for my insomnia disorder?

Note: Over-the-counter insomnia medicines, such as diphenhydramine (Sominex®) and doxylamine (Unisom®), and the dietary supplementmelatonin are not discussed in this summary. More research is needed to know if these work to improve symptoms of insomnia disorder. The antidepressant medicine trazodone (Oleptro®) is often used to treat insomnia disorder. But, trazodone was not included in the research for this summary because it is not approved by the U.S. Food and Drug Administration (FDA) for insomnia disorder.

What is the source of this information?

This information comes from a research report that was funded by the Agency for Healthcare Research and Quality, a Federal Government agency.

To write the report, researchers looked at 181 scientific research articles reporting on studies to manage insomnia disorder. The studies were published through January 2015.

Health care professionals, researchers, experts, and the public gave feedback on the report before it was published.

Understanding Your Condition

What is insomnia disorder?

Insomnia disorder is a long-term condition in which a person has trouble sleeping. Everyone has trouble sleeping every once in a while. But for people with insomnia disorder, sleep problems happen at least 3 nights each week for at least 3 months.

People with insomnia disorder have trouble falling asleep or staying asleep. You may:

- Lay awake for a long time before falling asleep.
- Stay awake for most of the night.
- Wake up often and have trouble getting back to sleep.
- Wake up too early in the morning.

Sleep problems from insomnia disorder also cause other problems during the day. You may:

- Feel tired or sleepy during the day.
- Not have enough energy.
- Feel irritable, anxious, or depressed.
- Worry about not being able to sleep.
- Forget things often.
- Have trouble concentrating.

Insomnia disorder can affect your daily life. It can affect your job and personal relationships. Feeling tired or sleepy can also increase your risk of having a car accident or injuring yourself. Insomnia disorder may also increase your risk for heart disease.

Many things can trigger insomnia, including:

- Stress, anxiety, or worry
- Too much caffeine, alcohol, or tobacco
- Poor sleep habits, such as not keeping a regular bedtime and looking at bright screens (your computer, TV, phone, or tablet) right before bed
- Changes in the times that you work (for example, shift work) and sleep

Once these triggers go away, the insomnia may continue and lead to insomnia disorder. This may happen because of habits you formed because of your insomnia (such as napping, getting in bed before you are sleepy, and lying in bed awake for long periods of time). Or, it may happen because of changes in the ways you think or feel about sleep (such as worrying about sleep or dreading to go to bed). Insomnia disorder can also sometimes happen on its own with no known cause.

How is insomnia disorder diagnosed?

Your health care professional will talk with you about your sleep problems and how long they have lasted. He or she may also talk with you about your sleep habits (such as the time you go to bed, the time you wake up, and how long you sleep). Your health care professional may ask you to keep a daily log of your sleep for 1 to 2 weeks.

Your health care professional may also ask you:

- What you usually do before going to bed
- What medicines you take
- If you snore
- If there is something in your life causing you to feel stressed or upset
- How much caffeine you have each day
- How often you drink alcohol
- If you smoke
- If you exercise regularly
- If you have any chronic pain
- What other health problems you have

Understanding Your Options

How is insomnia disorder treated?

Your health care professional will talk with you about what you can do to help improve your sleep. Your health care professional may suggest that you:

- Avoid caffeine late in the day.
- Avoid naps.
- Avoid alcohol, tobacco, large meals, and exercise within 2 hours of going to bed.
- Make sure your bedroom provides a good environment for sleep (it should be quiet, dark, and at a comfortable temperature).
- Avoid looking at bright screens (such as a TV, computer, phone, or tablet) close to bedtime.
- Go to bed only when you are sleepy.
- Leave the bedroom if you are not able to sleep.
- Stick to a regular sleep schedule.
- Do not hit the snooze button on your alarm.

Your primary health care professional may suggest that you go to a sleep specialist. Insomnia disorder can be frustrating, but there are treatments that can help.

Cognitive Behavioral Therapy for Insomnia

The first treatment your health care professional will likely recommend is cognitive behavioral therapy for insomnia (CBT-I). For CBT-I, you may meet with a therapist in person. Or, you can use an online CBT-I program. The goal of CBT-I is to change your behaviors and thoughts to help you sleep.

People with insomnia disorder may associate the bed and bedroom with wakeful activities or worry about sleeping. CBT-I helps you start to associate the bed and bedroom with positive thoughts of sleep. To do this, you should try to only get in bed when you are sleepy. You should also only sleep in the bedroom. Avoid doing other things in bed (such as reading, using your computer, or looking at your cell phone or tablet).

The CBT-I therapist or online program may recommend that you get out of bed and leave the bedroom if you are not able to sleep. You can gradually start spending more time in bed as your sleep improves.

CBT-I also helps you change the way you think about sleep. For example, CBT-I may help you recognize negative thoughts you have about sleep (such as fears about missed sleep and the belief that sleep is out of your control) and replace them with positive thoughts. It may also help you learn how to better control your thoughts at bedtime or if you wake up in the night. You may learn ways to relax your muscles to help reduce tension and control your thoughts.

Medicines

Your health care professional may suggest a medicine for your insomnia disorder in the short term. There are several types of medicines for insomnia disorder. But, these medicines are only meant to be taken for short periods of time (4 weeks to 3 months).

- **Eszopiclone (Lunesta®), zolpidem (Ambien®), and zaleplon (Sonata®)** are a type of medicine called non-benzodiazepine hypnotics. These medicines affect the brain and cause you to feel sleepy.
- **Suvorexant (Belsomra®)** is an orexin receptor antagonist. This medicine blocks orexin, a chemical in the brain that causes wakefulness.
- **Ramelteon (Rozerem®)** is a melatonin agonist. This medicine affects the level of melatonin, a chemical in the brain needed for sleep.
- **Doxepin (Silenor®)** is an antidepressant. This medicine changes the amounts of certain chemicals in the brain. It was made to treat depression, but it is also used to treat insomnia disorder.
- **Temazepam (Restoril®)** is a benzodiazepine hypnotic. This medicine slows activity in the brain to allow sleep. It is an older type of medicine that is no longer used often.

What have researchers found about CBT-I and medicines?

- Cognitive behavioral therapy for insomnia (CBT-I) improves the time it takes to fall asleep, total sleep time, and how well you sleep in the short term (4 weeks to 3 months) and long term (longer than 3 months).
  - CBT-I does not appear to have side effects.
- In the short term, the medicines eszopiclone (Lunesta®), zolpidem (Ambien®), and suvorexant (Belsomra®) improve the time it takes to fall asleep and total sleep time. There is not enough research to know if the medicines work or are safe in the long term (longer than 3 months).
  - Medicines for insomnia disorder have side effects, some of which can be serious.

Note: Possible side effects of medicines for insomnia disorder listed by the U.S. Food and Drug Administration (FDA) are discussed in more detail below.

Treatment	Treatment / Medicine	Name of Medicine	Does it improve symptoms of insomnia disorder?	Does it have side effects?
Non-medicine treatment	CBT-I	-	Yes	No
Medicines	Non-benzodiazepine hypnotics	Eszopiclone (Lunesta®)	Yes, in the short term	Yes, possibly serious
		Zolpidem (Ambien®)	Yes, in the short term	Yes, possibly serious
		Zaleplon (Sonata®)	Maybe, in the short term	Yes, possibly serious
	Orexin receptor antagonist	Suvorexant (Belsomra®)	Yes, in the short term	Yes, possibly serious
	Melatonin agonist	Ramelteon (Rozerem®)	Maybe, in the short term	Yes, possibly serious
	Antidepressant	Doxepin (Silenor®)	Maybe, in the short term	Yes, possibly serious
	Benzodiazepine hypnotic	Temazepam (Restoril®)	Not enough research to know	Yes, possibly serious

Findings about treatments for insomnia disorder

What are possible side effects of medicines for insomnia disorder?

According to the FDA, all of the medicines discussed in this summary can cause:

- Impaired alertness and motor coordination.
- Changes in behavior (such as agitation and aggression) and hallucinations.
- Sleepwalking or doing other activities in your sleep, such as driving a car, eating, talking, or having sex.
- Worsened depression and thoughts of suicide.

Do not drive or use machinery while taking one of these medicines. Do not take one of these medicines with alcohol or with other medicines that can cause drowsiness.

The chart below gives other possible side effects of medicines for insomnia disorder listed by the FDA. Just because a side effect is possible does not mean you will have it. Talk with your health care professional about any side effects you have.

Type of Medicine	Name of Medicine	Possible Side Effects	Warnings About More Serious Possible Side Effects
Non-benzodiazepine hypnotics	Eszopiclone (Lunesta®)	• Unpleasant taste in your mouth • Headache • Drowsiness • Dizziness • Dry mouth • Rash • Anxiety • Hallucinations • Symptoms of the common cold	• Eszopiclone (Lunesta®), zolpidem (Ambien®), and zaleplon (Sonata®) can cause: ◦ A severe allergic reaction (swelling of the tongue or throat and trouble breathing). ◦ Withdrawal symptoms when the amount of the medicine taken is lowered suddenly or the medicine is stopped. • People with liver, kidney, or breathing problems should talk with their health care professional before taking eszopiclone (Lunesta®), zolpidem (Ambien®), or zaleplon (Sonata®). • Drowsiness could lead to falls, which may lead to severe injury.
	Zolpidem (Ambien®)	• Drowsiness • Dizziness • Diarrhea	• Eszopiclone (Lunesta®), zolpidem (Ambien®), and zaleplon (Sonata®) can cause: ◦ A severe allergic reaction (swelling of the tongue or throat and trouble breathing). ◦ Withdrawal symptoms when the amount of the medicine taken is lowered suddenly or the medicine is stopped. • People with liver, kidney, or breathing problems should talk with their health care professional before taking eszopiclone (Lunesta®), zolpidem (Ambien®), or zaleplon (Sonata®). • Drowsiness could lead to falls, which may lead to severe injury.
	Zaleplon (Sonata®)	• Drowsiness • Lightheadedness • Dizziness • "Pins and needles"feeling on your skin • Trouble with coordination • Headache	• Eszopiclone (Lunesta®), zolpidem (Ambien®), and zaleplon (Sonata®) can cause: ◦ A severe allergic reaction (swelling of the tongue or throat and trouble breathing). ◦ Withdrawal symptoms when the amount of the medicine taken is lowered suddenly or the medicine is stopped. • People with liver, kidney, or breathing problems should talk with their health care professional before taking eszopiclone (Lunesta®), zolpidem (Ambien®), or zaleplon (Sonata®). • Drowsiness could lead to falls, which may lead to severe injury.
Orexin receptor antagonist	Suvorexant (Belsomra®)	Drowsiness	• Suvorexant (Belsomra®) can cause sleep paralysis (not being able to move or talk for several minutes while going to sleep or waking up). • People with breathing problems should talk with their health care professional before taking this medicine.
Melatonin agonist	Ramelteon (Rozerem®)	• Drowsiness • Dizziness • Tiredness • Nausea • Worsened insomnia	• Ramelteon (Rozerem®) can cause a severe allergic reaction (swelling of the tongue or throat and trouble breathing). • People with liver problems or sleep apnea should talk with their health care professional before taking this medicine.
Antidepressant	Doxepin (Silenor®)	• Drowsiness • Nausea • Upper respiratory tract infection	• People with sleep apnea should talk with their health care professional before taking this medicine.
Benzodiazepine hypnotic	Temazepam (Restoril®)	• Drowsiness • Dizziness • Headache • Nervousness • Nausea	• Temazepam (Restoril®) can cause: ◦ A severe allergic reaction (swelling of the tongue or throat and trouble breathing). ◦ Withdrawal symptoms when the amount of the medicine taken is lowered suddenly or the medicine is stopped. • Taking this medicine with opioid medicines, alcohol, or other medicines that cause drowsiness can lead to severe drowsiness, breathing problems, coma, and death. • This medicine has a risk of abuse (taking more of the medicine than your health care professional has prescribed) and dependence (feeling like you have to take the medicine and cannot stop). • People with liver, kidney, or breathing problems should talk with their health care professional before taking this medicine.

Possible side effects of medicines for insomnia disorder listed by the FDA

Making a Decision

What should I think about when deciding on treatment for my insomnia disorder?

You and your health care professional can decide what might be best to treat your insomnia disorder. Here are some things to think about. Be sure to share your thoughts with your health care professional.

- What specific sleep problems am I having, and how often do they happen?
- How is insomnia disorder affecting my daily life?
- What can I do to improve my sleep habits?
- What treatments might be a good fit for me?
- Which treatments are covered by my health insurance plan, and what are the costs of the treatments?

Ask your health care professional

Ask your health care professional

- What specific changes can I make in my behavior to help improve my sleep?
- Might cognitive behavioral therapy for insomnia (CBT-I) help?
- How can I find a therapist? Is there an online CBT-I program I can try?
- Might a medicine help my insomnia disorder?
- If so, which medicine might be best for me?
- How long would I take the medicine?
- Which side effects should I watch for?
- What else might I try if the treatment is not working?
- Might I need to see a sleep specialist?

Source

The information in this summary comes from Brasure M, MacDonald R, Fuchs E, Olson CM, Carlyle M, Diem S, Koffel E, Khawaja IS, Ouellette J, Butler M, Kane RL, Wilt TJ. Management of Insomnia Disorder. Comparative Effectiveness Review No. 159. (Prepared by the Minnesota Evidence-based Practice Center under Contract No. 290-2012-00016-I). AHRQ Publication No.15(16)-EHC027-EF. Rockville, MD: Agency for Healthcare Research and Quality; December 2015.

Additional information came from MedlinePlus, a service of the National Library of Medicine and the National Institutes of Health.

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Project Timeline

Management of Insomnia Disorder

Oct 25, 2013	Topic Initiated	
Apr 3, 2014	Research Protocol	ARCHIVED
Dec 30, 2015	Systematic Review	ARCHIVED
Aug 1, 2017	Clinician Summary	ARCHIVED
Aug 1, 2017	**Consumer Summary**	ARCHIVED
Oct 30, 2017	Consumer Summary	ARCHIVED

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