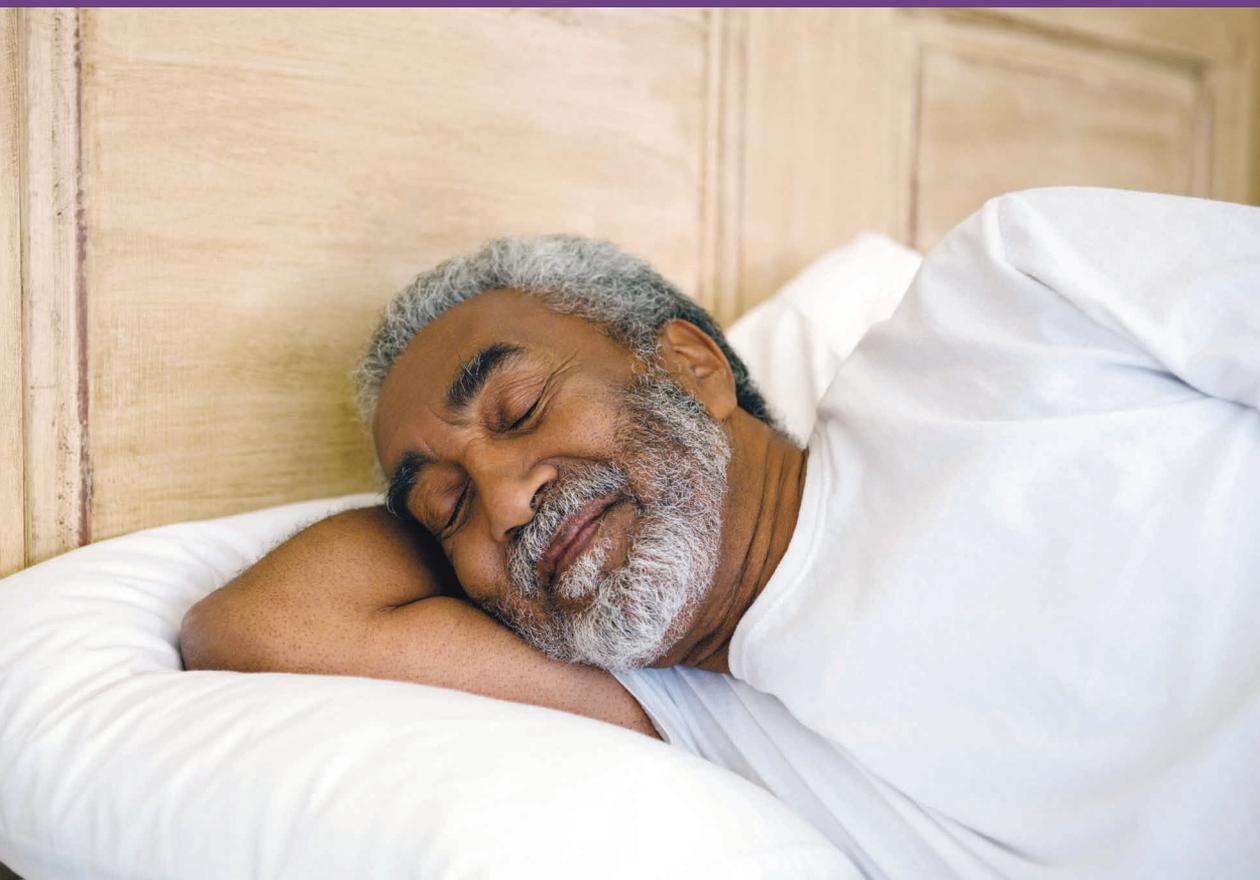


# Sleep and Older Adults

How to Get a Good Night's Sleep

From the National Institute on Aging at NIH





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Use the Table of Contents to help find things quickly. Also, we put some medical terms in bold, such as **sleep apnea**. Find how to say these words and what they mean in the “Words to Know” section on page 22.



# What's Inside

Adults need about seven to nine hours of sleep every night. This booklet provides tips for getting a good night's sleep, which supports health, well-being, and safety. Consider sharing the information with your family and friends.

## This booklet will help you learn:

- What happens during sleep
- The importance of sleep
- How aging changes your sleep
- Ways to improve your sleep
- Types of sleep problems

# What Is Sleep?

You spend about one-third of your life sleeping or trying to sleep. But how does this basic human need work?

Though it may seem simple, sleep is a complex process. Multiple parts of the brain work together to produce signals that prepare the body for sleep. Your **circadian rhythm** — “the body’s clock” — provides the timing for sleep. **Sleep-wake homeostasis**, a state of balance, is the body’s drive to sleep that increases the longer you are awake. The signals in your body lead to sleep, including:

- **Melatonin**, a hormone your body releases when it gets dark that makes you feel sleepy.
- **Adenosine**, a chemical that builds up in your brain while you’re awake and gets broken down while you’re asleep.

A good night’s sleep depends on sleeping when your body is prepared, sleeping seven to nine hours, and getting enough of each type of sleep.

The types of sleep, **rapid eye movement (REM)** and **non-REM**, are linked to patterns (waves) of electrical activity in your brain and occur in cycles — usually three to five each night. Non-REM sleep happens when your brain wave activity slows down, called deep sleep. You need deep sleep to feel refreshed in the morning. You typically dream during REM sleep, when your brain wave activity is closest to what it is when you're awake. Dreaming may help you process your emotions. Both non-REM and REM sleep help you store memories.



## Ellen's Story



I used to wake up in the morning ready to take on the day. Lately I've had trouble sleeping at night, which makes it so hard to wake up. I don't have much energy to do things anymore, not even simple things like going to the mailbox to get the mail. How will I be able to play with my grandkids? I need to get better sleep.

# Why Is Sleep Important?

Sleep is important for your body — from the brain, heart, and lungs to energy, protection against disease, and mood. It also affects your ability to function during the day. A good night's sleep can help you:

- Learn
- Create new memories
- Respond quickly
- Solve problems
- Pay attention
- Make decisions
- Be creative





Not getting enough sleep can cause harm to your body. Research shows that over time it can increase your risk of:

- High blood pressure
- Heart disease
- Diabetes
- Obesity
- Depression
- Alzheimer's disease

If you wake up tired, feel easily annoyed, have trouble falling asleep, or have trouble staying asleep, these may be signs you're not getting a good night's sleep.

## Did you know? Lack of quality sleep can:

- Worsen memory
- Lead to negative feelings
- Put stress on relationships
- Increase falls or accidents

# How Aging Affects Sleep

As you age, how you sleep changes. Older adults tend to go to bed earlier and wake up earlier than younger adults, and the amount of time spent in each type of sleep decreases. Sleep tends to be shorter and lighter and you may wake up more often during the night. Older adults are also more likely to take medications and have medical conditions that affect sleep.

Many older adults don't sleep well. Factors such as illness, medications, mental health, and pain can make it hard to get a good night's sleep. Sleep disorders become more common with age, including **insomnia** (trouble falling or staying asleep), **sleep apnea** (pauses in breathing during sleep), and movement disorders like **restless legs syndrome**.

Practicing better sleep habits and being diagnosed and treated if you have a sleep disorder may help improve your sleep.

Have you felt tired and unable to do your activities for more than two to three weeks? It is time to talk with your doctor.



# Getting a Good Night's Sleep

Getting a good night's sleep is important to your well-being. The way you feel while you're awake depends in part on what happens while you're sleeping. During sleep, your body is working to help your brain and body be at their best.

Good sleep can help protect your mental and physical health, quality of life, and safety. Not getting quality sleep can increase your risk for health problems and affect how well you think, react, work, learn, and get along with others.



# Healthy Sleep Habits for Older Adults

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## Do:

- ✓ Follow a regular schedule by going to sleep and getting up at the same time each day, even on weekends or when traveling.



- ✓ Have a bedtime routine. Find ways to relax before bedtime each night. Read a book, listen to soothing music, or take a warm bath.



- ✓ Make your room comfortable for sleep and keep the temperature not too hot or cold.



- ✓ Try to get regular exercise, but not within three hours of your bedtime.



- ✓ Talk to your doctor if you have a problem sleeping.



## Don't:

- ✘ Nap in the late afternoon or evening.



- ✘ Have caffeine late in the day, which can keep you awake at night. For example, coffee, tea, chocolate, and soda.



- ✘ Drink alcohol, even small amounts.



- ✘ Watch television or use a computer, cell phone, or tablet in the bedroom.



- ✘ Eat large meals within two to three hours of your bedtime or drink large amounts of liquid late in the day.



## Safe Sleep Tips for Older Adults

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- ❑ Install smoke alarms on each floor of your home.
- ❑ Lock all windows and doors that lead outside.
- ❑ Keep a telephone with emergency numbers by your bed.
- ❑ Have a lamp that's easy to reach and turn on, a nightlight in the hallway or bathroom, and a flashlight nearby.
- ❑ Don't smoke, especially in bed.
- ❑ Remove items such as area rugs and cords that you could trip over.

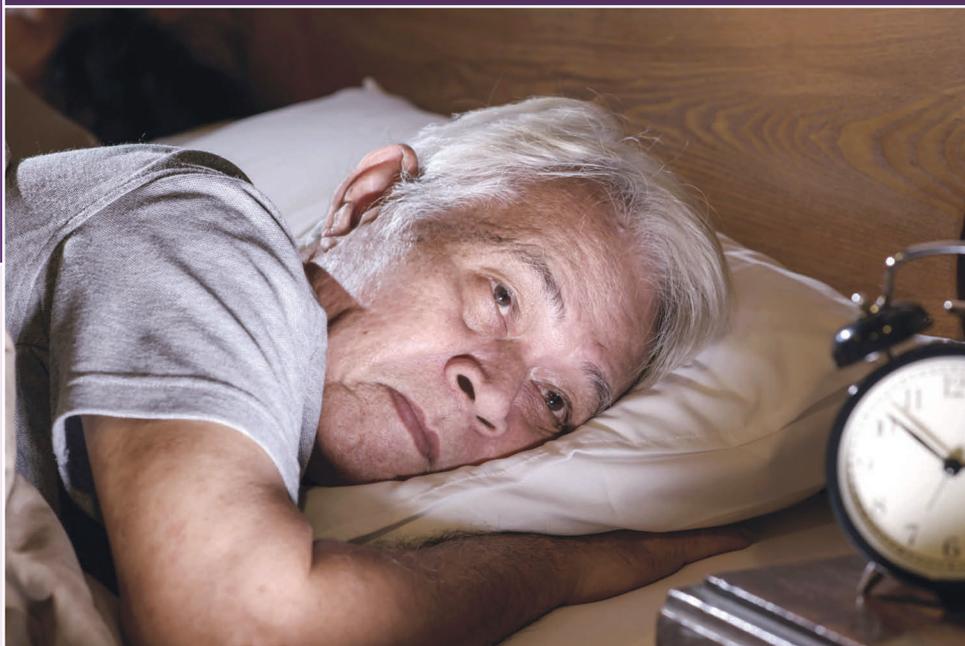
Talk with your doctor before starting medication or supplements to improve your sleep. Sleep medication may help in the short term, but there is risk and the potential to become dependent on the pills. You may not feel refreshed in the morning or clear-headed during the day. Some pills also may lose their effectiveness over time, so you will need more and more to fall asleep.

**If you are having trouble paying to heat or cool your home, there are programs that can help.**

- National Energy Assistance Referral (NEAR) service. Call 866-674-6327 or TTY 866-367-6228 or send an email to [energyassistance@ncat.org](mailto:energyassistance@ncat.org) for referral information on energy assistance.
- Contact your local energy agency or power or gas company for tips to help keep your heating and cooling bills down. They may also have programs for people on a fixed or limited income.
- Your local Area Agency on Aging ([www.n4a.org](http://www.n4a.org), or call 202-872-0888), senior center, or social service agency ([www.usa.gov/state-social-services](http://www.usa.gov/state-social-services)) may have information about other sources of help.



## Matteo's Story



At first, I thought staring at the clock well into the night was not something to be worried about — that my new sleep pattern was just me adjusting to retirement. I'd sometimes be able to fall asleep but would keep waking up during the night. This went on for weeks. I wasn't "all there" during the day and kept waking my wife up at night as well. This was not a normal or healthy sleep pattern.

# Sleep Disorders

## Insomnia

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**Insomnia** is the most common sleep problem in adults age 60 and older. People with this condition have trouble falling asleep or staying asleep at least three nights a week. Short-term insomnia can be caused by stress or changes to routine. Chronic, or long-term, insomnia lasts more than three months and can't be fully explained by another medical cause.

Healthy habits at bedtime may help prevent or manage insomnia, and cognitive behavioral therapy (a type of counseling) can help. Sleep medicines may help in the short term, but they carry risks and should not be used long term.

If you have trouble sleeping, keep a sleep diary for a couple weeks. Keep track of when you go to bed, when you wake up during the night, and when you wake up for the day. Note whether you had caffeine (coffee, soda, chocolate, etc.), alcohol, or exercised that day. The sleep diary will help you identify patterns to discuss with your doctor and help with diagnosis.

## Sleep Apnea

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**Sleep apnea** causes you to stop breathing for a few seconds repeatedly during sleep. Throat muscles relax during sleep, and in people with sleep apnea, this relaxation of the muscles blocks their airway. Snoring can be a sign, but not everyone who snores has sleep apnea. To treat sleep apnea, a continuous positive airway pressure (CPAP) device may be used while sleeping. Sleeping in a position that keeps airways open or getting a dental device or surgery also may help.

If you suspect you have sleep apnea, it's important to talk to your doctor. Undiagnosed or untreated sleep apnea can lead to serious health problems, including heart attack.



## Movement Disorders

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*“ I would wake up in the morning like I hadn’t slept at all, with my sheets in a tangle. ”*

Movement disorders make it harder to get good sleep. Read about these disorders below and talk with your doctor if you think you may have one of these problems.

**Restless legs syndrome** feels like there is tingling, crawling, or pins and needles in one or both legs. This feeling is worse at night and feels better with movement. Treatment with iron supplementation or medications is usually helpful.

**Periodic limb movement disorder** causes people to jerk and kick their legs every 20 to 40 seconds during sleep. Medication, warm baths, exercise, and relaxation can help.

The body normally stays still during REM sleep, but people with **REM sleep behavior disorder** can move their muscles and act out their dreams. This disrupts sleep and can be dangerous. Treatment includes a safe environment to prevent injuries while sleeping, and medication or melatonin supplements.

Based on your symptoms, your doctor may suggest a **polysomnogram** — an overnight sleep test done at a sleep center that measures and records what happens while you sleep, including your brain activity, eye movements, and muscle activity — to make a diagnosis.

# Alzheimer's Disease and Related Dementias and Sleep

Alzheimer's and related dementias can cause changes such as sleeping too much or not enough, waking up often, and wandering or yelling at night. This affects the sleep of both the person with dementia and the caregiver. Poor sleep quality can make dementia symptoms worse, so it is important to take steps that help improve sleep and nighttime safety.

## Sleep and Safety Tips

- Help the person get exercise each day.
- Limit daytime naps and make sure they get enough sleep at night.
- Plan activities for earlier rather than later in the day.
- Create a routine that includes a peaceful and relaxing mood.
- Make sure the floor is clear of objects.
- Lock up any medicines.
- Attach grab bars in the bathroom.
- Place a gate across the stairs.
- Use nightlights in the bedroom, hall, and bathroom.

Learn more about managing sleep problems at [www.nia.nih.gov/health/6-tips-managing-sleep-problems-alzheimers](http://www.nia.nih.gov/health/6-tips-managing-sleep-problems-alzheimers).

# Points to Remember

- Sleep is a complex process.
- You need quality sleep to stay healthy and help you function.
- As you age, how you sleep changes.
- There are healthy habits you can practice to improve your sleep.
- It's important to talk with your doctor if you experience sleep problems.



# For More Information

## **American Sleep Apnea Association**

888-293-3650 (toll-free)

asaa@sleepapnea.org | [www.sleepapnea.org](http://www.sleepapnea.org)

## **Centers for Disease Control and Prevention**

800-232-4636 (toll-free) | 888-232-6348 (TTY/toll-free)

[cdcinfo@cdc.gov](mailto:cdcinfo@cdc.gov)

[www.cdc.gov](http://www.cdc.gov)

## **MedlinePlus**

National Library of Medicine

[www.medlineplus.gov](http://www.medlineplus.gov)

## **National Center on Sleep Disorders Research**

301-592-8573

[ncsdr@nih.gov](mailto:ncsdr@nih.gov)

[www.nhlbi.nih.gov/about/divisions/division-lung-diseases/national-center-sleep-disorders-research](http://www.nhlbi.nih.gov/about/divisions/division-lung-diseases/national-center-sleep-disorders-research)

## **National Energy Assistance Referral Hotline**

866-674-6327 (toll-free) | 866-367-6228 (TTY/toll-free)

[energyassistance@ncat.org](mailto:energyassistance@ncat.org)

<https://liheapch.acf.hhs.gov/help>

## **National Sleep Foundation**

703-243-1697

[nsf@thensf.org](mailto:nsf@thensf.org) | [www.thensf.org](http://www.thensf.org)

## **Restless Legs Syndrome Foundation**

512-366-9109

[info@rls.org](mailto:info@rls.org) | [www.rls.org](http://www.rls.org)

# To Learn More About Health and Aging

## National Institute on Aging Information Center

800-222-2225 (toll-free)

800-222-4225 (TTY/toll-free)

[niaic@nia.nih.gov](mailto:niaic@nia.nih.gov)

[www.nia.nih.gov](http://www.nia.nih.gov)

Visit [www.nia.nih.gov/health](http://www.nia.nih.gov/health) to find more health and aging information from NIA and subscribe to email alerts.

Visit <https://order.nia.nih.gov> to order free print publications.

Share this booklet with friends and family so they can learn how to get a good night's sleep.

# Words to Know

## **Adenosine**

(pronounced ah-DEN-o-seen)

A chemical that increases in your brain while you're awake and gets broken down while you're asleep.

## **Circadian rhythm**

(pronounced sir-KAY-dee-un RIH-thum)

The body's 24-hour repeating rhythm, also called the "body's clock." Drives the timing for sleep.

## **Insomnia**

(pronounced in-SOM-nee-uh)

A condition in which a person has trouble falling asleep or staying asleep.

## **Melatonin**

(pronounced mel-ah-TONE-in)

A hormone your body releases when it gets dark that makes you feel sleepy.

## **Non-rapid eye movement (non-REM) sleep**

A type of sleep when brain wave activity slows down. Also called "deep sleep."

## **Periodic limb movement disorder**

A sleep disorder in which a person's legs jerk and kick every 20 to 40 seconds during sleep.

## **Polysomnogram (PSG)**

(pronounced pol-ee-som-nuh-gram)

An overnight sleep test done at a sleep center or lab that measures and records what happens while you sleep, including your brain activity, eye movements, and muscle activity.

## **Rapid eye movement (REM) sleep**

A type of sleep when patterns (waves) of electrical activity in your brain are closest to what they are when you're awake. You typically dream during REM sleep.

## **Rapid eye movement (REM) sleep behavior disorder**

A sleep disorder in which a person can move their muscles during REM sleep and act out their dreams.

## **Restless legs syndrome**

A sleep disorder in which a person feels one or both legs tingling, or feels a crawling or pins and needles sensation that gets worse at night and feels better with movement.

## **Sleep apnea**

(pronounced . . . AP-nee-uh)

A condition in which a person experiences pauses in breathing during sleep.

## **Sleep-wake homeostasis**

(pronounced . . . HOH-mee-oh-STAY-sis)

The body's drive to sleep that increases the longer you are awake. Refers to a state of balance.



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