



Getting Your Zzzzzzz's

How sleep affects
health and aging



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The importance of a good night's sleep

I didn't sleep a wink."
"I tossed and turned all night."
"I wake up in the middle of the night and can't get back to sleep."

These are common complaints among older men and women. In fact, constant sleeplessness affects about one-third of all older Americans.

A lack of sleep seriously diminishes our quality of life. Going without a good night's sleep can result in sleepiness during the day, attention and memory problems, a depressed mood, and a greater risk of falling.

A lack of sleep may also lead to serious health disorders. Yet sleep problems often go unrecognized or are not treated appropriately.



Sleeplessness and aging

Sleep disorders, like many problems of later years, often begin in mid-life.

Poor sleep is *not* a natural part of aging, although physical changes and illnesses associated with aging can lead to sleep problems. Sleep problems may arise as a result of dramatic changes in a person's life, such as the death of a spouse. Other possible culprits include decrease in physical activity and limited exposure to sunlight.

Sleeplessness sets up a vicious cycle. Older people have problems that disturb their sleep, which often affects their other body systems, especially hormone production and metabolism—causing more problems that disturb sleep even more!



A paradox

While sleep researchers agree that total sleep loss is harmful to our health, they are not unanimous on whether small decreases in the amount of time we sleep have any effect on the brain and the body. To add to the confusion, recent studies suggest that insomnia is associated with prolonged life.

Although sleep patterns change across the life span, we cannot afford to ignore the effects of poor sleep on quality of life. We need to understand the reasons for our sleep problems, as they may make us vulnerable to other health problems.

Snoring is no joke

Sleep disordered breathing (snoring) has always been a source of humor on TV sitcoms. It is also an irritant to long-suffering spouses. But snoring is also a warning sign—snoring may indicate a health problem. The Nurses' Health Study found that snoring was associated with hypertension (high blood pressure) as well as weight-related health problems. Snoring can be a symptom of breathing problems—known by doctors as sleep apnea.

People who experience sleep apnea are not getting enough oxygen during sleep, which causes them to wake up frequently and experience excessive daytime sleepiness.

Several studies have shown that people who suffer from sleep apnea have high rates of motor vehicle crashes.

Tell the doctor

Not everyone who snores or has trouble sleeping has sleep apnea. But it's important to let our physicians know about these symptoms, so they can be included in the medical history.

Risk factors

Obesity, alcohol, smoking, nasal congestion, and estrogen depletion in menopause increase the risk for sleeplessness. For overweight people, losing weight through a healthy diet combined with an exercise program holds the greatest promise for solving weight-related sleep problems, particularly sleep apnea.

The mystery of female longevity

As researchers investigate the connections between sleep, hormones, metabolic function, obesity, cardiovascular disease, and aging, they should certainly take into account the effects of age, race, and gender. Could it be that women sleep more soundly than men, and that is why they generally live longer than men?



Insomnia

Insomnia, or trouble sleeping, may be a short-term problem or a chronic one. A period of mourning or adjustment to medical problems may cause short-term insomnia.

It is important to understand why a person is an insomniac before treatment can begin. There is a variety of reasons, including:

Medical illness—Older people who are diagnosed with serious illnesses have more difficulty sleeping than healthy individuals.

Psychiatric illness—Mental as well as physical health affects sleep. The psychological diagnosis most commonly associated with insomnia complaints is depression. Depression is more common among older men and women than among younger people. Older people with depression have more disturbed sleep than younger adults.

Lifestyle—The use of alcohol, caffeine, nicotine, over-the-counter remedies, and herbal medicines, as well as a poor sleep environment and excessive napping during the day, may all contribute to insomnia.

Menopause and sleep—Thus far, research data have failed to make a connection between menopause and sleep disturbances.

Sleep Deprivation

Insufficient sleep can have a profound effect on our body's ability to work properly.

For example:

Recent research points to sleep apnea as a risk factor for diabetes because it interferes with the body's normal metabolism and hormone production.

Studies on healthy adults show that sleep deprivation significantly affects the way the body processes naturally produced insulin.

Sleep deprivation is associated with obesity and hypertension, two conditions related to metabolism.

Sleep deprivation and apnea may also trigger changes in the nervous system, with an impact on our cardiovascular system.



What are circadian rhythms?

Circadian rhythms are the body's internal clock. These rhythms, which influence virtually every function of our body, are regulated by a kind of "pacemaker." A primary role of the human circadian pacemaker is to control the periods of sleep and wakefulness. With age, circadian rhythms can shift and go out of sync with "clock time." As a result, your internal clock may signal that it's time to sleep although the clock on your wall may indicate it's still early. That is why older people often report that they can hardly stay awake until bedtime but are awake before the sun rises.

What's a sleep homeostatic process?

Sleeping and waking up are controlled by a complex interaction of circadian rhythms and the "sleep homeostatic process." The sensation of sleepiness, falling asleep, and depth of sleep are ways the body tries to compensate for sleep deprivation. Think of the sleep homeostatic process as your body's effort to maintain the balance between being awake and asleep—helping you make up for the sleep you have lost by encouraging you to sleep longer and more deeply. As we grow older, this process works less efficiently.

Getting a good night's sleep



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Short naps of no more than 20–30 minutes may actually be good for you.

Regular exercise has been shown to be an extremely important part of a healthy lifestyle. It increases our aerobic capacity and strength, helps keep us slim and trim, improves balance, and decreases the risk of falls. Exercise also keeps us functioning longer, energizes us, and gives us a greater sense of mental and physical well-being. But can exercise help us sleep better? And through improved sleep can exercise help us to be healthier, to live longer, and enhance the quality of our lives? We do know that

older women and men who exercise regularly report a good quality of sleep and general well-being. Four current studies of the effect of exercise on sleep quality of older men and women indicate that some kind of regular exercise, whether endurance, resistance, or stretching/flexibility, is likely to have some beneficial impact on the quality of our sleep. However, more research is needed.

Medication—About one-half of all patients who complain of insomnia are treated with medications called hypnotics. Although these drugs may be useful in the management of short-term insomnia, they generally fail to provide long-term relief from chronic sleep disturbances.

Some experts believe that light therapy (phototherapy) and a drug known as melatonin are likely to become effective treatments for some of the insomnias associated with aging. However, at present, melatonin and another alternative substance, valerian, have extremely limited data to support their effectiveness as sleep aids.

Napping—More older people are insomniacs than daytime nappers, but sleepiness and napping both increase with age.

Research has shown that daytime sleepiness does not always increase in healthy older adults, but this has not been examined carefully in older people

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with health problems. However, daytime sleepiness and napping seem to point to poor health. Better sleep during the night would help to prevent sleepiness during the day.

A wake-up call

Up to now, the consensus has been that “sleep is for the brain” but has little effect on physical health. Now, emerging evidence indicates that sleep loss does indeed affect us physically as well.

New studies are highlighting the significant impact of sleep on physical and mental well-being, especially for older men and women. Just as poor diet and lack of exercise can be detrimental to our health, lack of adequate sleep may be linked to poor health and susceptibility to disease, particularly in older men and women.



12 tips for sleeping well

- 1 Keep a regular schedule**
Go to bed at the same time every night and get up at the same time every morning.
- 2 Exercise**
Exercise is best in the late afternoon, but at least three hours before bedtime.
- 3 Take a walk**
Walking increases exposure to light, and it's good exercise.
- 4 Take one short nap a day**
Limit naps to one per day for no more than 20–30 minutes.
- 5 Check the side effects of medications**
Some medications act as stimulants.
- 6 Avoid alcohol**
Alcoholic beverages can disrupt sleep.
- 7 Avoid nicotine**
Nicotine is a stimulant and can cause nightmares.
- 8 Avoid overeating**
A heavy meal in the evening can make it difficult to sleep.
- 9 But don't go to bed hungry**
Eat a light snack.
- 10 Limit liquid intake in the evening**
Cut down on liquids to avoid waking up to use the bathroom.
- 11 Relax before going to sleep**
Create a relaxing routine and avoid activities that are anxiety provoking.
- 12 Get up after 15 minutes of sleeplessness**
Leave the bed and engage in a relaxing activity.

Creating a sleep-friendly environment

A room that is cool, quiet, and dark is conducive to sleep.

A cooler body temperature signals the body that it is time to sleep.

Avoid extremes of dryness and humidity.

Avoid extremes of hot or cold.

Make sure the mattress is comfortable and supportive.

Diminish anxiety by keeping a “to-do” book for jotting down ideas.

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Use the bed only for sleep and sex, to strengthen the mind’s association between bed and sleep.

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Organizations

National Sleep Foundation
1522 K Street, NW, Suite 500
Washington, DC 20005-1253
Tel: 202-347-3471
Web site: www.sleepfoundation.org
E-mail: nsf@sleepfoundation.org

American Sleep Apnea Association
1424 K Street, NW, Suite 302
Washington, DC 20005
Tel: 202-293-3650
Web site: www.sleepapnea.org
E-mail: asaa@sleepapnea.org

Stanford University Center of Excellence for the Diagnosis and Treatment of Sleep Disorders
www.med.stanford.edu/school/psychiatry/coe

Credits

Writer:
Judith Estrine

Editor:
Helene Wolff

Copy Editor:
Lisa DeLisle

Designer:
Herbert Reade

Illustrator:
Larry Ross



601 E STREET, NW
WASHINGTON, DC 20049
TEL: 1-800-424-3410
www.aarp.org/foundation

The AARP Foundation is AARP's affiliated charitable organization dedicated to enhancing the quality of life for all as we age. We lead positive social change and deliver value to those 50 and older through information, education, and service.



INTERNATIONAL LONGEVITY CENTER-USA
60 EAST 86TH STREET, NEW YORK, NY 10028
TEL: 212 288 1468
FAX: 212 288 3132
www.ilcusa.org

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