

# Sleep

## Guide to Good Health

### *Healthy Living Guide*

- ▶ Asthma
- ▶ Chronic Fatigue Syndrome (CFS)
- ▶ Chronic Obstructive Pulmonary Disease (COPD)
- ▶ Coronary Artery Disease (CAD)
- ▶ Depression
- ▶ Hyperlipidemia
- ▶ Hypertension
- ▶ Osteoarthritis (OA)
- ▶ Osteoporosis
- ▶ Type 2 Diabetes
- ▶ Back Pain
- ▶ Chronic Pain
- ▶ Healthy Eating
- ▶ Healthy Pregnancy
- ▶ Rheumatoid Arthritis (RA)
- ▶ Sleep
- ▶ Smoking Cessation
- ▶ Stress Management
- ▶ Weight Management
- ▶ Bariatric Surgery

## Why is Sleep Important?

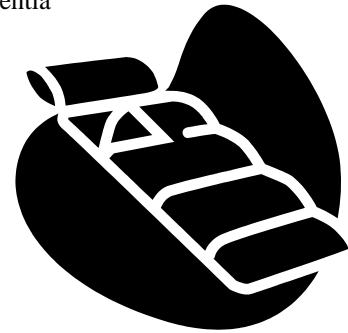
During sleep our brains are hard at work forming pathways necessary for learning and creating memories and new insights. A number of vital tasks carried out while we sleep help maintain good health and enable us to function at our best.

Not getting enough sleep makes it hard to focus, pay attention, or respond quickly. Mood problems can develop. Evidence is growing that shows a lack of sleep raises the risk for obesity, diabetes, cardiovascular disease and infections.

Sleep has distinctive stages that cycle throughout the night. Different things happen during each stage that help maintain good health and help us function at our best. Both the quality & quantity is important.

### Overview & Facts

- The amount of sleep needed for each person varies. Given unlimited opportunity, most people sleep an average of 8 to 8.5 hrs/night.
- The number of hours needed for sleep changes throughout the lifecycle.
  - Most adults: 7-8 to 9 hrs/night
  - Newborns: 16-18 hrs/day
  - Preschool children: 10-12 hrs/day
  - School aged children & teens: at least 9 hrs/night
- In 1910, most people slept 9 hrs/night; now, less than 7. In today's 24/7 world, we tend to cut back on sleep.
- Skimping 1 hr can make it more difficult to focus the next day and can slow response time. Lack of sleep slows thought processes, making it harder to pay attention.
- Studies show it can make us more easily confused, leading to faulty decision making, more risk taking.
- One third of adults report daytime sleepiness so severe that it interferes with work/social functioning at least a few days each month.
- There may be as many as 70 million Americans who are affected by chronic sleep loss or sleep disorders, at an annual cost of \$16 billion in health care expenses and \$50 billion in lost productivity.
- Studies indicate the following cardiovascular conditions are more likely to occur when we do not get enough sleep:
  - Strokes, chest pain, irregular heartbeats, and heart attacks
- Congestive heart failure (condition where fluid builds because heart not pumping well)
- Lack of sleep may also put one at risk for the following:
  - Obesity or difficulty losing weight
  - Infertility in women
  - More susceptibility to infections
  - Psychological disorders
  - Diabetes
  - Other medical conditions, i.e. restless legs syndrome, arthritis, fibromyalgia, congestive heart failure, breathing disorders (sleep apnea, asthma, chronic bronchitis), enlarged prostate, gastroesophageal reflux disease, dementia



### Signs & Symptoms

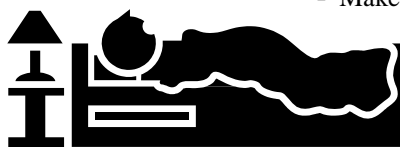
- ✓ Reduced energy level
- ✓ Continual yawning
- ✓ Difficulty focusing, remembering, poor recall
- ✓ Slowed response time
- ✓ Disturbed coordination
- ✓ Lowered performance, reduced creativity
- ✓ Tendency to make poorer decisions or take more risks
- ✓ Increased irritability, poor behavior, trouble with relationships
- ✓ Depression
- ✓ Reduced libido
- ✓ Difficulty falling asleep, early morning awakenings, frequent and long awakenings during the night, daytime sleepiness, lack of refreshing sleep
- ✓ Falling asleep for a short period of time; waking self up
- ✓ Dozing off or having difficulty staying awake during routine tasks, i.e. driving
- ✓ Increased illness related to lowered immune system
- ✓ Difficulty managing weight, eating foods higher in calories/carbohydrates
- ✓ Reduced healing times, prolonged recovery times

## *Causes*

- Aging
- Overly warm sleeping environment, noise
- Large meals or exercise just before bedtime
- Too much activity or stimulation close to bedtime
- Stress (more difficult to fall asleep or stay sleep, spend less time in deep sleep/REM sleep)
- Not taking enough time for sleep
- Disruption of biological clock by jet lag, shift work, or other pattern disturbances.
- Lack of exposure to bright light or sunlight
- Sleeping too much during day
- Stimulants such as caffeine, nicotine
- Illicit drugs, such as amphetamines and cocaine
- Exhilaration or excitement
- Alcohol (prevents deep sleep/REM sleep) or abruptly stopping alcohol after long-term use
- Not enough physical activity
- Grief
- Medications: decongestants, steroids, bronchodilators, pain relievers containing caffeine, beta blockers, antidepressants
- Suddenly stopping a medication (such as sleeping pills or sedatives)
- Overuse of sleeping pills
- Menstrual cycle just before bleeding
- Medical conditions such as restless legs syndrome, arthritis, fibromyalgia, sickle cell anemia, congestive heart failure, breathing disorders (sleep apnea, asthma, chronic bronchitis), enlarged prostate, gastroesophageal reflux disease, dementia
- Overactive thyroid
- Frequent urination
- Obesity
- Psychological disorders (PTSD, schizophrenia, bipolar disorder, anxiety disorders)
- Depression (cycle: often leads to insomnia which can cause depression)

## *Preparation for Appointment*

- Write down all of your symptoms.
- Do you have difficulty falling asleep, staying asleep, or awakening too early?
- How often do you wake up at night?
- How long have you had the problem?
- What is your sleeping schedule/pattern?
- Make a list of your medical conditions.
- Make a list of your medications.



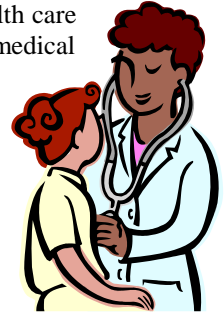
## *Questions to Ask Your Provider*

1. What do you think is the cause of my sleeping difficulty?
2. Could my current medications, lifestyle, or any other conditions be affecting my sleep?
3. If it's my medications, is it possible to change the medications, their dosages, or the time of day that I take them?
4. What things can I do to improve sleep that does not involve medicine?
5. What tests do I need?
6. Do I need to see a specialist? What will that cost? Will my insurance cover it?
7. How safe are sleep medications? Are they addictive?
8. What are some of the side effects?
9. Is there a generic alternative to the medicine you're prescribing?
10. Could this medicine interact with other medicines I am taking for other conditions?
11. Does the frequency with which I take a prescription sleep aid impact its effectiveness – or can I take it as I feel is necessary?
12. How long can I take sleep medications?
13. How can I avoid becoming dependent on sleep medications?
14. What are the advantages of taking a prescription sleep medication instead of an over-the-counter (non-prescription) medication?
15. Do you have any brochures or other printed material I can take home with me? What websites do you recommend?

## Diagnostic Workup

Sleep disorder tests are often used to diagnose insomnia. If you think you have insomnia, talk to your health care provider. To address your concern, he or she will perform a physical exam, order labs and/or conduct a medical and sleep history to determine the cause. In some cases, thyroid tests may be ordered.

- Tests:
  - ✓ Sleep diary
  - ✓ Epworth Sleepiness Scale: validated questionnaire used to assess daytime sleepiness
  - ✓ Polysomnogram: test measuring activity during sleep
  - ✓ Actigraphy: test to assess sleep-wake patterns over time. Actigraphs are small, wrist devices that measure movement.
  - ✓ Mental health exam



## Treatment and Care

Not getting enough sleep affects our bodies, minds and spirits. Diagnosis of the type of sleeping difficulty and treatment of underlying conditions is crucial in management. With chronic insomnia, there may be multiple factors involved requiring multiple types of treatment.

### Common Types of Sleeping Problems:

#### 1. Sleep Apnea

- Mild sleep apnea can be treated with behavioral changes such as losing weight, and sleeping on your side. Mouth devices to keep the airway open can be used to reduce snoring.
- Moderate to severe Sleep Apnea is usually treated with a **C-PAP (continuous positive airway pressure)**. C-PAP is a machine that blows air into your nose via a nose mask, keeping the airway open and unobstructed. For more severe apnea, there is a **Bi-level (Bi-PAP) machine**. The Bi-level machine is different in that it blows air at two different pressures. When a person inhales, the pressure is higher and in exhaling, the pressure is lower. Your sleep doctor will "prescribe" your pressure and a home healthcare company will set it up and provide training in its use and maintenance.
- Facial, nose, and throat conditions causing sleep apnea can be corrected. Examples: small jaw or smaller opening at the back of the throat, enlarged tonsils, large tongue or some other tissues (adenoids, polyps) that partially block the airway, deviated septum.
- Losing weight also may help with sleep apnea.

#### 2. Insomnia

- Behavior treatment including: relaxation, sleep restriction, stimulus control, or cognitive therapies
- Pharmacologic Treatment
  - Hypnotic Medications
  - Antidepressants
  - Anti-anxiety medications. To be used with caution (addicting).
  - Antihistamines
  - Melatonin



**Note:** There are other drugs available such as barbiturates and a number of older nonbenzodiazepine, nonbarbiturate drugs. These drugs are not recommended for the treatment of insomnia due to a narrow therapeutic ratio, rapid development of tolerance, systemic toxicity, potential for abuse and possibility of severe clinical complications on withdrawal.

## Healthy Lifestyle Management

- **Keep to a regular schedule, even on weekends.**
- **Avoid exercising closer than 5-6 hrs before bedtime.** Exercise in the daytime is linked to improved nighttime sleep.
- **Avoid caffeine & nicotine.** Stimulating effects of caffeine in coffee, colas, teas, and chocolate can take as long as 8 hrs to wear off. Nicotine leads to lighter than normal sleep. Heavy smokers also tend to wake up too early because of nicotine withdrawal.
- **Avoid alcoholic drinks before bed.** Alcohol can keep you in the lighter stages of sleep, and you tend to wake in the middle of the night when the sedating effects have worn off.
- **Keep journal or note pad nearby.** Write down anything that you are worried you will forget.
- **Avoid naps after 3 p.m.** While naps can boost your brain power, late afternoon naps can make it harder to fall sleep at night. Keep naps to less than one hour. Be aware that naps do not substitute for a good night's sleep.
- **Practice stress management techniques.** Practice progressive muscle relaxation, roll breathing, meditate or pray, take yoga, let go of things out of your control.
- **Relax before bedtime.** Try reading or listening to music as part of your bedtime ritual.
- **Take a hot bath before bed.** The drop in temperature following a bath mimics, in part, what happens as you fall asleep. Also, the bath is relaxing.
- **Try sleeping on your side instead of your back.** Sleeping on your side can help reduce the amount of upper airway collapse during sleep.
- **Avoid large meals & beverages late at night.** Large meals can cause indigestion interfering with sleep and liquids cause you to awaken frequently to urinate.
- **Avoid medicines that delay or disrupt your sleep if possible.** Sleep patterns can be disrupted by some commonly prescribed heart, blood pressure or asthma medications, as well as over the counter and herbal remedies for coughs, colds or allergies. Many pain relievers taken by headache sufferers contain caffeine. Heart and blood pressure medications known as “beta blockers” can cause difficulty falling asleep and increase the number of awakenings during the night. People who have chronic asthma or bronchitis also have more problems falling asleep and staying asleep than healthy people, either because of their breathing difficulties or because of the medicines they take.
- **Move alarm clock away from the bed.** If it is a source of distraction
- **Share back rubs.**
- **Have a good sleep environment.** Eliminate things that can prevent sleep (noises, bright lights, uncomfortable bed, TV or computer in the bedroom. Keep the temperature cool. Have a comfortable mattress and pillow.
- **Get adequate sunlight exposure.** Daylight is the key to regulating daily sleep patterns. Try to go outside for natural sunlight for at least 30/minutes/day.
- **Avoid lying in bed awake.** If unable to fall asleep after being in bed more than 20 minutes, get up and find a relaxing activity until sleepy. The anxiety of not being able to sleep can make it harder to fall asleep.
- **See a doctor if you continue having trouble sleeping.** If you consistently find yourself feeling tired during the day, despite spending enough time in bed at night, you may have a sleep disorder.
- **Lose weight if you are overweight.** Even a small amount of weight loss can sometimes improve symptoms.

## Resources

- ❖ National Heart, Lung and Blood Institute: [www.nhlbi.nih.gov/health](http://www.nhlbi.nih.gov/health)
- ❖ Sleep Disorders: [www.medscape.com](http://www.medscape.com)
- ❖ Insomnia: [www.MedicineNet.com](http://www.MedicineNet.com)
- ❖ Sleeping Difficulty: [www.nlm.nih.gov/medlineplus/healthtopics.html](http://www.nlm.nih.gov/medlineplus/healthtopics.html)
- ❖ U.S. Department of Health and Human Services – Your Guide to Healthy Sleep: [www.usdhs.gov](http://www.usdhs.gov)
- ❖ Sleep Disorders; Sleep Your Way to Weight Loss? [www.webmd.com](http://www.webmd.com)

