



"Stop Dreaming About Quality Sleep and Do Something About It!"

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2002 Sleep in America Poll

- The National Sleep Foundation's 2002 *Sleep in America* poll suggests that many problems and frustrations that have become part of the American way of life, from anger and stress to obesity, may have inadequate sleep and widespread sleep problems as contributing factors.
- Poll results show that as many as **47 million** adults may be putting themselves at risk for injury, health and behavior problems because they aren't meeting their minimum sleep need in order to be fully alert the next day.

So What Exactly is Sleep?

- Defined as a state of unconsciousness from which a person can be aroused. In this state, the brain is relatively more responsive to internal stimuli than external stimuli.
- Sleep was initially thought to be a passive state; however, sleep is now known to be a dynamic process, and our brains are actually quite active during sleep.

Why is sleep so important?

Sleep affects our physical and mental health, and is essential for the normal functioning of all the systems of our body, including the immune system.



The effect of sleep on the immune system affects one's ability to fight disease and endure sickness.

Other Implications...

For our nervous systems to work properly, sleep is needed.

- Sleep deprivation makes a person drowsy and unable to concentrate the next day.
- Sleep deprivation also leads to impairment of memory & physical performance, as well as a reduced ability to carry out mathematical calculations.
- If sleep deprivation continues, hallucinations and mood swings may develop.

Even More.....

- Release of growth hormone in children and young adults takes place during deep sleep.
- Most cells of the body show increased production and reduced breakdown of proteins during deep sleep—allowing the body to help repair damage from things like stress and ultraviolet rays—adding a hint of truth to the term "beauty sleep."
- The body also builds bone and muscle, and strengthens our immune system at this time.
- Sleep may also be instrumental in reinforcing our memories and, some experts believe, essential to processing complex emotions.

Reduced Sleep=Increased Weight

- Women who sleep 5 hours or less per night generally weigh more than women who sleep 7 hours per night.
- These findings, presented at the 2006 American Thoracic Society International Conference, showed that women who slept 5 hours per night were 32% more likely to experience major weight gain (an increase of 33 pounds or more) and 15% more likely to become obese over the course of the 16-year study, compared to those who slept 7 hours a night.

Just one night of sleep deprivation

- Increases Ghrelin levels & feelings of hunger
- Disturbs the hormone system balance-which causes the body to store more fat
- Associated with weight loss resistance

What is Ghrelin?

- It is considered the counterpart of the hormone leptin (which is produced by adipose tissue), which makes you feel full when present at higher levels. Ghrelin levels increase before meals and decrease after meals.
- Ghrelin is essential for cognitive adaptation to changing environments and the process of learning.

How much sleep is enough?

- The amount of sleep we need varies from person to person, and depends on many factors, including age.
- Infants tend to need the most sleep, averaging about 16 hours per day.
- Teenagers need about 9 hours.
- Most adults need approximately 7 to 9 hours of sleep to feel fully rested.

Sleep Screening Questionnaire

- Series of questions designed to determine the patient's risk for a sleeping disorder.
- Score of greater than 10 places you at moderate risk for a diagnosis of a sleep disorder.
- What is your score?

Am I getting enough sleep?

- Sleep should be without interruption.
- When you wake up, you should feel well-rested, refreshed, and ready to go.
- You should generally have no sleepiness during the day, even when involved in boring or mundane activities.
- If you're feeling drowsy during the day, you may not have gotten enough quality sleep.
- If you typically fall asleep within five minutes of lying down, it is likely that you have severe sleep deprivation, or possibly a sleep disorder.

7 Sleep Stealers

- Health Issues
- Anxiety/Stress
- Disruptive bedroom environment
- Inconsistent sleep schedule
- Stimulating nighttime activities
- Poor sleep diet
- Bedmates, kids and pets

Insomnia

- A common medical condition that is estimated to affect at least 10% of American adults.
- Insomnia can take many different forms: difficulty falling asleep or staying asleep, waking up too early, or waking up not feeling refreshed.
- In a survey by the National Sleep Foundation, 54% of adults said they've experienced at least one symptom of insomnia at least a few times a week. Also, another survey that they conducted in 2008 found that many people say that their symptoms affect their daily activities at least a few days a week.

Causes of Insomnia

- Emotional stress
- Health
- Lifestyle
- Sleep environment
- Sleep disorder



Lifestyle

- Jet Lag
- Caffeine
- Alcohol
- Food and Fluids
- Tobacco
- Exercise
- Aging
- Work



Caffeine

- Caffeine is a stimulant that can help people feel more awake by blocking sleep-inducing chemicals in the brain and increasing adrenaline production.
- A person can feel the effects of caffeine in as little as 15 minutes from ingesting it, but it can take up to six hours for just one half of that caffeine consumed to be eliminated.
- Drinking six or more 8 oz. cups of coffee a day is considered excessive. If you are having problems sleeping, cut down on your consumption of coffee, tea, and other beverages that contain caffeine

Sleep Environment

- **Noise:** Try to keep noise down as much as possible and avoid interruptions. Once you are awakened by noise, the quality of your sleep may degrade. It is a good idea to close your door. Consider running a fan or use a soft background sound to help drown out distracting noises.
- **Light:** Light affects your eyes and also affects the way your brain produces hormones that regulate your sleep rhythms. Even a minimal amount of daylight shining through closed curtains can disrupt your sleep. Lights from televisions or alarm clocks can disturb some people. Turn them away from your face when you sleep.
- **Distractions:** Hide the bedroom clocks. Go ahead and set your alarm as usual, but keep the clock out of sight as you sleep. The less you focus your attention on the time, the better you'll sleep.
- **Temperature:** If you are too warm or too cold, you are less likely to sleep soundly, so try to keep the room at a comfortable temperature.
- **Bed:** Be sure your bed is firm enough and large enough for you and your partner. Have clean and comfortable bedding and pillows. Limit the time you spend awake in your bed and use it only for sleeping (and sex). Too much time in bed can lead to shallow, restless sleep. Try to cut the time you spend in bed by one hour a night for two weeks and see if it helps you sleep.

Sleep Disorders

- Snoring
- Sleep Apnea
- Restless Legs Syndrome
- Narcolepsy
- Teeth grinding
- Night Sweats
- Sleep Talking
- Sleep Walking
- Nightmares



Sleep Apnea

- A telltale sign of sleep apnea is a distinctive snore: snoring followed by a period of silence that ends with a loud gasp as you start to breathe again
- It is estimated that 18 million Americans have sleep apnea, but very few of them are diagnosed. When a patient has symptoms of sleep apnea, it is recommended that he or she have a sleep study performed.

Sleep Fitness Program

- Evaluate your sleep fitness
- Relax your way to sleep
- Build your bedroom sanctuary
- Optimize your sleep schedule
- Adopt a power down hour
- Eat and drink smart for sleep
- Harmonize with your housemates

Power down hour

- No phone, no TV, no email
- Maybe a hot bath, get into bed with a good book (not great book!) and then go to bed

Zeo Personal Sleep Coach

- Every morning, Zeo will tell you your ZQ — a number that summarizes your sleep's quantity and quality — and lots of other information about your sleep. If you can measure it, you can improve it.



Natural Sleep Aids

- **Melatonin** is the main hormone in the body that contributes to the control of our normal sleep-wake cycle. Synthetic melatonin is produced in factories not regulated by the FDA because it is classified as a dietary supplement and not a drug. Although melatonin is widely sold as a sleep aid, it remains controversial in medical circles.
- Herbal remedies for sleep problems include chamomile, valerian root, hops, lavender, and passionflower. Herbal remedies are generally considered safe; however, there are some that can be harmful under certain circumstances. (For example: You should not use chamomile if you are pregnant or if you are taking blood thinners.)

Bottom Line

- Snoring is a big deal because it can indicate serious health problems.
- Science has proven you need between 7-9 hours of sleep each night.
- You can't make up missed sleep. The sleep system is homeostatic – it self-regulates. If you sleep less than your body wants you'll naturally restore balance to the system the following nights. That said, if you starve your body of sleep for a long period, you can damage the neural apparatus in your brain that controls your sleep cycle.

Bottom Line-continued

- Sleeping Longer ROBS You of Energy and Damages your Sleeping System.
- Losing even an hour of sleep is a big deal.
- Your body does not adjust to sleep changes easily – if you travel across different time zones or work different shifts, your body's sense of time gets confused. For every one- to two-hour time change, it takes your body 1 day to adjust.

Questions to consider

1. Do you have trouble falling asleep, trouble staying asleep, or waking up earlier than you would like to?
2. How do you typically feel when you wake up in the morning: very refreshed, somewhat refreshed, or fatigued?
3. Overall, how often do you have trouble getting a good night's sleep?
4. How severe is your sleep problem?
5. How long have you had this sleep problem?
6. Has your bed partner noticed anything unusual about your sleep?
7. Have you had any recent changes in your life or illnesses?
8. What other steps have you taken to try to improve your sleep?
9. What medications you are currently taking?
10. If you have taken medications to help you sleep, how did you respond to them?

References

- www.sleepfoundation.org
- www.sleepassociation.org
- www.emedicinehealth.com
- www.jcircadianrhythms.com
- www.shuteye.com
- www.jjvirgin.com
- www.myzeo.com

SLEEP DISORDER SCREENING QUESTIONNAIRE

Name: _____

Date: _____

How likely are you to doze off or fall asleep in the following situations?

- 0 = would never doze
1 = slight chance of dozing
2 = moderate chance of dozing
3 = high chance of dozing

Circle the appropriate number

Situation	Chance of dozing
Sitting and reading	0 1 2 3
Watching TV	0 1 2 3
Sitting, inactive in a public place (e.g., a theater or meeting)	0 1 2 3
As a passenger in a car for an hour without a break	0 1 2 3
Lying down to rest in the afternoon when circumstances permit	0 1 2 3
Sitting and talking to someone	0 1 2 3
Sitting quietly after lunch, without alcohol	0 1 2 3
In a car, while stopped for a few minutes in traffic	0 1 2 3

Total from above: _____ (>10?)

Do you often feel sleepy during the daytime? Yes No

Do you snore, or has anyone ever told you that you snore? Yes No

Has anyone ever told you that you stop breathing during sleep? Yes No

Do you ever have a choking or gasping sensation during sleep? Yes No

Do your legs 'kick' during sleep? Yes No

Week of _____	Example	Day	Day	Day	Day	Day	Day	Day
Name _____	Wed.							
1. Last night, I turned off the lights at _____ O'clock.	11:45 pm							
2. After turning out the lights, I fell asleep in _____ minutes	25 min							
3. This morning, I woke up at _____ O'clock (note time of last awakening)	6:15 am							
4. This morning I got OUT of BED at _____ O'clock	6:30 am							
5. I feel I slept a total of _____ hours last night.	6 hours							
6. My sleep was interrupted _____ times. (Specify number of nighttime awakenings)	3							
7. I was awake for a total of _____ Minutes when I add all awakenings.	40 minutes							
8. Yesterday, I took _____ mg medication and/or _____ oz. of alcohol as a sleep aid	Ambien 5mg							
9. Yesterday, I napped from _____ to _____ (note the time of all naps taken)	1:00-1:30 5:00-5:15 8:00-8:45							
10. When I got up this morning, I felt _____ (1= Exhausted, 5= Refreshed)	3							
11. Overall, my sleep last night was _____ (1=Very Restless, 5=Very Sound)	3							