



*Sleep: From A to Zzzz's*



**Healthy Utah**

[www.HealthyUtah.org](http://www.HealthyUtah.org)



# *Is This You?*



# Is This You?



- **74%** of American adults experience a sleeping problem a few nights a week or more.
- **39%** get less than **7** hours of sleep each weeknight.
- **37%** are so sleepy during the day that it interferes with daily activities.



# *How's Your Sleep?*



- Snore loudly.
- You or others have observed that you stop breathing or gasp for breath during sleep.
- Feel sleepy or doze off while watching TV, reading, driving or engaged in daily activities.
- Have difficulty sleeping 3 nights a week or more (e.g. trouble falling asleep, wake frequently during the night or wake too early and cannot get back to sleep).
- Feel unpleasant, tingling, creeping feelings or nervousness and the urge to move in your legs when trying to sleep.
- Interruptions to your sleep (e.g., nighttime heartburn, bad dreams, pain, discomfort, noise, family members, light or temperature).

(National Sleep Foundation)

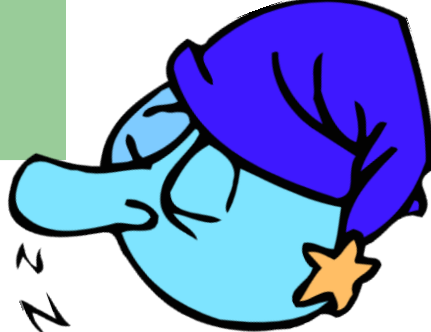
# Sleep



Sleep is a basic necessity of life as important as air, food and water. It determines if we wake up feeling refreshed, alert and ready for the day **or** if our jobs, relationships, productivity, health and safety will suffer.

**\$23.7 billion-a-year industry**  
**(U.S. Sleep Market, 2008)**

# *Sleep*



**Although sleep experts generally recommend an average of 7-9 hours per night, some people can get along with less while others need as much as 10 hours to feel alert the next day.**

# *The Sleep Cycle*



- Sleep occurs in multiple stages including dreamless periods of light and deep sleep, and occasional periods of active dreaming (REM sleep).
- The sleep cycle is repeated several times during the night.
- Total sleep time tends to remain constant throughout life, however as we age we tend to spend more time in the lighter stages of sleep.

# Myths



## 1. Snoring is a common problem, especially among men, but it **isn't** harmful.

- Although snoring may be harmless for most people, it can be a symptom of a life threatening sleep disorder called **Sleep Apnea**, especially if it is accompanied by severe daytime sleepiness.
- **Sleep Apnea** is characterized by pauses in breathing that prevent air from flowing into or out of a sleeping person's airways.
- Snoring on a frequent or regular basis has been directly associated with **hypertension**.

# Myths



## 2. You can **"cheat"** on the amount of sleep you get.

Sleep experts say most adults need between **7-9 hours** of sleep each night for optimum performance, health and safety. When we don't get adequate sleep, we accumulate a **sleep debt** that can be difficult to **"pay back"** if it becomes too big.

# Myths



3. Turning up the radio, opening the window, or turning on the AC **are effective** ways to stay awake when driving.

These "aids" are **ineffective** and can be dangerous to the person who is driving while feeling drowsy or sleepy. If you're feeling tired while driving, the best thing to do is to pull off the road in a safe rest area and take a nap for **15-45 minutes**. The best prevention for drowsy driving is a good night's sleep the night before your trip.

# Myths



## 4. Insomnia is characterized by **difficulty falling asleep.**

Difficulty falling asleep is but **one of four** symptoms generally associated with insomnia. The others include:

- **waking up too early and not being able to fall back asleep**
- **frequent awakenings**
- **waking up feeling un-refreshed**

# Myths



5. Daytime sleepiness **always** means a person isn't getting enough sleep.

This condition, which can occur even after getting enough nighttime sleep, can be a sign of an underlying medical conditions or sleep disorders such as **Narcolepsy or Sleep Apnea**. These problems can often be treated, and symptoms should be discussed with a physician.

# Myths



**6. Health problems such as obesity, diabetes, hypertension, and depression are unrelated to the amount and quality of a person's sleep.**

- Studies have found a relationship between the quantity and quality of one's sleep and many **health problems**.
- More and more scientific studies are showing correlations between poor and insufficient sleep and **disease**.

# Myths



## 7. The older you get, the **fewer hours** of sleep you need.

Sleep experts recommend a range of **7-9 hours** of sleep for the average adult. While sleep patterns change as we age, the **amount of sleep** we need generally does not.

# Myths



## 8. During sleep, your **brain rests**.

The body rests during sleep, however, the **brain remains active**, gets "recharged," and still controls many body functions including breathing. When we sleep, we typically drift between two sleep states, REM (rapid eye movement) and non-REM, in **90-minute cycles**.

# Myths



9. If you wake up in the middle of the night, it is **best** to lie in bed, count sheep, or toss and turn until you eventually fall back asleep.

Waking up in the middle of the night and not being able to go back to sleep is a symptom of insomnia. **Relaxing imagery** may help to induce sleep more than counting sheep. If you do not fall back asleep within **15-20 minutes**, you should get out of bed, go to another room and engage in a **relaxing activity** such as listening to music or reading. Return to bed when you feel sleepy.

# *Sleep Deprivation*



- **Daytime Sleepiness**
- **Increased Accidents (at work, home and on the road)**
  - Drowsy driving claims more than **1,500** lives and causes at least **100,000** motor vehicle crashes **each year** (National Hwy Traffic Safety Administration)
- **Problems Concentrating**
- **Decrease Productivity**
  - Costs U.S. employers an estimated **\$18 billion** in lost productivity (1997 NSF Poll)

# *Sleep Deprivation*



- **Increased Sickness**
- **Weight Gain / Obesity**
- **Increased Depression / Negative Mood**
- **Behavioral and Relationship Problems**
- **Increased Risk of Chronic Diseases**
  - Hypertension
  - Heart Disease
  - Stroke
  - Diabetes

# *Is this you?*



- **Burned out!**
- **Can't drop those extra pounds!**
- **Don't have the energy to greet each day with enthusiasm!**

# *What are you missing?*



# *Third Piece of the Weight Loss Puzzle*



## SLEEP



# *Sleep & Weight Loss*

- **People who slept 5 hours per night were 73% more likely to become obese than those getting 7-9 hours of sleep.**
- **People getting 6 hours of sleep per night were 27% more likely to become obese than those getting 7-9 hours.**
- **77% of older adults who are obese report some kind of sleep problem**



# *Sleep & Weight Loss*

- **Less motivation to diet or exercise.**
- **Unhealthy snacking and increased soda consumption**
- **Bigger appetites decreased leptin levels promote an increase in appetite.**



# *Sleep & Weight Loss*

- **“Royal route to obesity” or Sleep deprivation may inhibit one’s ability to lose weight (Cauter, 1999)**
- **Sleep debt impairs metabolism and disrupts hormone levels.**
- **Psychological Manifestations of fatigue and hunger are similar.**

# *It Goes Both Ways*



**Obesity** can contribute to  
sleep problems and sleep  
problems can contribute to  
**obesity.**

# *The Solution*

- Start by improving sleep patterns first.



- Then add exercise and healthy eating. \*Work up to **2.5 hours** of physical activity per week.

# *Sleep Hygiene*



Does having good  
hygiene help you  
sleep?



# *Sleep Hygiene*



The promotion of  
**regular sleep** is  
known as  
*sleep hygiene*



# *Road to Better Sleep*

- **Have a sleep schedule.** Go to bed and wake up at the same time each day, including weekends.
- **Create a quiet, dark and relaxing environment.**
  - Update your mattress. The average life expectancy of a good quality mattress is 9-10 years.
  - Remove all TVs, computers, and other “gadgets” from the bedroom. Face the clock away from you.
  - Keep the temperature on the cool side.
  - Keep your room clean and free from clutter.



# *Road to Better Sleep*

- **Relax before bed.** Take time to unwind. A relaxing activity, such as reading or listening to music, should be part of your bedtime ritual and should help to transition from work to bed. Work hard during the day to get tasks done so you can relax in the evening. Leave work at work.
- **Take a hot bath before bed.** The drop in body temperature after the bath may help you feel sleepy, and the bath can help relax you.



# *Road to Better Sleep*

- **Exercise Regularly.** This makes it easier to fall asleep and contributes to sounder sleep. Late afternoon exercise is the perfect way to help you fall asleep at night. However finish your exercise at least 3 hours before bedtime.
- **Practice relaxation techniques.** Relaxation training, which often involves reducing tension and muscular relaxation techniques can help to elicit deep sleep more quickly.



# *Road to Better Sleep*

- **Don't take naps after 3 p.m.** Naps can boost your brain power, but late afternoon naps can make it harder to fall asleep at night. Also, keep naps to under an hour.
- **Have the right sunlight exposure.** Daylight is key to regulating daily sleep patterns. Try to get outside in natural sunlight for at least 30 minutes each day.



# *Road to Better Sleep*

- **Don't lie in bed awake.** If you find yourself still awake after staying in bed for more than 20 minutes, get up and do some relaxing activity until you feel sleepy. The anxiety of not being able to sleep can make it harder to fall asleep. If you are not successful in 20 minutes, repeat.
- **Don't Snooze.** Don't hit the snooze button. Set the alarm to get up on the first ring. The most beneficial sleep is uninterrupted.



# *Road to Better Sleep*

- **Start a Sleep Journal** – This can help you identify if there is an issue and adjust the factors you are able to control.
- **Try Side Sleeping** - Helps keep spine aligned and reduces snoring.
  - Get into bed and turn to one side. Put a pillow between your knees and another under your head for support.
  - Your head pillow should be just high enough to prevent your neck from side bending up or down; your whole spine should be straight when viewed from the side.
  - Draw your bottom elbow and shoulder forward far enough so you do not lie directly on your arm.



# *Road to Better Sleep*

- **Avoid caffeine and nicotine 3-4 hours before bed.** The stimulating effects of caffeine in coffee, colas, teas, and chocolate can take as long as 8-12 hours to wear off fully. Nicotine is also a stimulant.
- **Avoid alcoholic drinks before bed.** A “nightcap” might help you get to sleep, but alcohol keeps you in the lighter stages of sleep. You also tend to wake up in the middle of the night when the sedating effects have worn off.



# *Road to Better Sleep*

- **Avoid large meals and beverages 2-3 hours before bedtime.** A large meal can cause indigestion that interferes with sleep. Drinking too many fluids at night can cause you to awaken frequently to urinate.
- **Avoid medicines that delay or disrupt your sleep, if possible.** Some commonly prescribed heart, blood pressure, or asthma medications, as well as some over-the-counter and herbal remedies for coughs, colds, or allergies, can disrupt sleep patterns.

# *Progressive Relaxation*



# *Progressive Relaxation*



- **Toes** – Curl toes
- **Calves** – Pull instep and toes toward shins
- **Legs** – Contract upper/lower leg muscles
- **Abs/Back** - Pull abdomen inward (navel toward the spine) and arch back
- **Hands** – Make a fist
- **Arms** – Contract upper/lower arm muscles
- **Shoulders** – Pull shoulders towards the ears
- **Neck and throat** – Tuck chin and push head backward towards chair
- **Forehead** – Raise your eyebrows and wrinkle forehead
- **Cheeks and nose** – Wrinkle nose and squint
- **Jaw** – Clench teeth
- **Lips and tongue** – Press lips together and tongue to roof of mouth
- **Whole body** – Contract all the muscles in your entire body

# *Diaphragmatic Breathing*

