

## Tips & Methods to Improve Sleep

- **Identify potential causes** for sleep disturbances
- List at least three techniques to **improve sleep hygiene**
- **Understand foods** that promote sleep and stimulate wake
- Develop three coping **strategies for sleep issues and sundowning**

### Sleep Disorders

Sleep disorders involve any disrupted sleep pattern, such as:

- Trouble falling or staying asleep (insomnia)
- Excessive daytime sleepiness (hypersomnia)
- Difficulty breathing during sleep (apnea)
- Excessive nighttime physical activity (such as restless leg syndrome)
- Nocturnal hallucinations and/or behavioral problems

### Insomnia

Although insomnia symptoms vary from person to person, the condition is normally divided into two categories:

- **sleep onset insomnia**, or the inability to fall asleep easily; and
- **sleep maintenance insomnia**, or the inability to remain asleep throughout the night

### Hypersomnia

Hypersomnia is characterized by the inability to remain awake and alert during normal 'waking hours'.

Patients may be asked to maintain a 'sleep journal', which includes:

- the onset and frequency of daytime sleepiness episodes
- the patient's nightly amount of sleep.

### Sleep Apnea

Sleep apnea is generally defined as the temporary loss of breath during sleep. Apnea is common in elderly people, as well as those with a history of obesity.

- Severe snoring is a common symptom in people with sleep apnea.
- Other telltale signs include choking, gasping for air and nocturia (or excessive nocturnal urination).

**Apnea is common in elderly people**

In general, the amount of sleep needed stays constant throughout the adult years. But sleep problems are common in the elderly. Doctors recommend that **adults get 7 to 8 hours of sleep each night**. In older adults, sleep is less deep and choppy than sleep in younger people. Sleep Apnea is also common for those with a history of obesity.

### **A Behavior Isn't a Problem: It's a Message!**

Remember that there are a multitude of reasons why people have trouble sleeping, and your loved one isn't trying to be a problem or a burden. **They're sending you a message that something is wrong**, and they need help.

### **Possible Causes of Sleep Disorders**

- **Brain changes** that occur in dementia
- A sign of other illnesses the patient may have, including **angina, congestive heart failure, or diabetes**
- **Pain**, which could be a result of arthritis
- **Urinary tract infections** or the frequent need to urinate, especially at night
- Agitation
- Disturbing dreams
- Depression
- Restless leg syndrome or leg cramps
- Side effect of medications
- Sleep apnea or snoring

**Environmental issues** in their place of sleep, such as

- Poor lighting
- A need for less sleep as a result of aging
- Poor sleeping environment (hot temperature in the room, for example)
- Changes in environment
- Bedtime that is too early
- Sleeping or napping during the day
- Excessive tiredness causing tension
- Too much caffeine or alcohol
- Hunger/nutritional issues

### **Body temperature and sleep**

In healthy people, changes in body temperature occur throughout the day and night, they are controlled by the body clock in the brain, and they mimic activity cycles

In general, body temperature is lowest when activity levels are lowest, such as in the middle of the night, and body temperature is at its highest during periods of highest activity, such as in the middle of the day

## David G. Harper

Harper, PhD Division of Sleep Medicine: Harvard Medical School, and his colleagues studied the daily activity and body temperature cycles of 38 men who had Alzheimer's disease or another type of dementia, called frontotemporal degeneration, or FTD

Patients with Alzheimer's disease were not only more active at night, but they also had a higher body temperature during this time period. In contrast, the daily body temperature rhythms of patients with FTD were similar to those of healthy individuals even though they were also more wakeful at night

### Sleep Tip #1 - Melatonin

These results suggest that efforts to 'reset' the brain body clock -- the part of the brain that determines sleep/wake cycles, through such strategies as giving patients the sleep hormone melatonin or exposing them to bright light at certain times of the day, should work in Alzheimer's patients but not FTD patients

#### Melatonin

- Melatonin is a hormone involved in the sleep-wake cycle
- A Scottish study found that 2mg of melatonin nightly improved the sleep of people with Alzheimer's
- However, in the U.S. melatonin is sold as a poorly-regulated supplement, and studies have found that commercially sold supplements are often of questionable quality and purity
- So melatonin may work less reliably here than in Europe

*Harper DG, Stopa EG, McKee AC, Satlin A, Harlan PC, Goldstein R, Volicer L. Differential circadian rhythm disturbances in men with Alzheimer disease and frontotemporal degeneration. Arch Gen Psychiatry. 2001 Apr;58(4):353-60. [PMID: 11296096]*

### Sleep Tip #2 - Non-Medication Approaches

- Although medications are often used to manage sleep problems in dementia, most of them are pretty risky. So it's better to avoid sedatives until you've exhausted all other options
- Non-drug approaches like plenty of outdoor light, regular exercise, a stable routine, optimizing chronic conditions, and checking for pain often help
- Vitamins/supplements that contain vitamin B6, magnesium, GABA, (Gamma-aminobutyric acid) valerian, and melatonin.
- These can help relax your body and mind. Plus, these usually improve the person's quality of life overall

#### Sundowning

- People with Alzheimer's and dementia may have problems sleeping or increases in behavioral problems that begin at dusk and last into the night
- Nighttime restlessness doesn't last forever. It typically peaks in the middle stages, and then diminishes as the disease progresses

### **Sleep Tip #3 - Dealing with your Loved One who is Sundowning**

- Approach your loved one **in a calm manner** - agitation feeds agitation!
- Find out if there is something he or she needs
- Gently **remind him or her of the time** - "I know this is important to you, but it is 1:00 am"
- Avoid arguing as much as possible
- **Offer reassurance** that everything is all right

### **Sleep Tip #4 - Foods that Promote Sleep**

- Pasta/Rice
- Bananas
- Cereal
- Cheese and Crackers
- Turkey
- Eggs with Cheese
- Dairy

### **Sleep Tip #5 - What to Avoid**

- Avoid large, high-fat meals late in the day
- Avoid caffeine late in the day and avoid alcohol at bedtime
- Don't drink too many fluids before bedtime

### **Sleep Tip #6 - Maintain an Overall Healthy lifestyle**

- Eat a balanced and varied diet
- Eating a healthy diet, maintaining a healthy weight and getting appropriate exercise can help you sleep well
- Avoid smoking
- Avoid caffeine after noon, and limit alcohol to 1 drink several hours before bedtime
- Get regular exercise. But keep in mind, **exercising too close to bedtime may interfere with sleep**

### **Sleep Tips for a Better Bedtime Routine**

- Establish a quiet, relaxing bedtime routine
- Relax your body
- Make your bedroom conducive to sleep

- Put clocks in your bedroom out of sight
- Keep the room temperature cool
- Go to bed only when you're sleepy. If you aren't sleepy at bedtime, do something relaxing that will help you wind down
- Wake up at the same time every day. If you experience increased awake time during the night, resist the urge to sleep in
- Avoid daytime napping. Napping can throw off your sleep cycle
- If you wake up and can't fall back to sleep within 20 minutes or so, get out of bed. Go to another room and read or do other quiet activities until you feel sleepy

### **Final Tips and Suggestions**

- Keep the home well lit in the evening and use natural sunlight when possible in the day
- Make a comfortable and safe sleep environment
- Maintain a schedule
- Avoid stimulants
- Plan more active days (outside when possible)
- Be mindful of your own mental and physical exhaustion

### **Resources and References**

Alzheimer's Association <https://www.alz.org/care/alzheimers-dementia-sleep-issues-sundowning.asp>

Mayo Clinic <https://www.mayoclinic.org/diseases-conditions/insomnia/expert-answers/foods-that-help-you-sleep/FAQ-20057763>