

## Sleep and Dementia

Sleep problems are present in about 45% of people with Alzheimer's disease.

### What is normal and healthy?

- Staying asleep at least 85% of the time spent in bed
- Falling asleep within 30 minutes
- Waking up once per night for up to 20 minutes
- Maintaining normal sleep/wake cycle (circadian rhythm)
- Using sleep hygiene measures (see attached)
- Treating underlying sleep disorders (i.e. sleep apnea, insomnia, depression, anxiety)

### What is abnormal or unhealthy?

People who are at greatest risk of developing impaired thinking due to sleep issues:

- Sleep less than 5 hours or more than 9-10 hours per night
- Experience multiple awakenings of 40 minutes or more
- Are not treating underlying sleep disorders (i.e. untreated sleep apnea is linked to increased levels of beta amyloid protein in the brain which occur in Alzheimer's disease)

### What sleep issues are linked to dementia?

- Abnormal sleep/wake cycle (circadian rhythm)
- Frequent awakening or short periods of sleep
- Sun downing in late stages
- Lack of sleep plus over-stimulation can be one cause of agitation

### What can be done?

- Avoid OTC sleep aids, such as Tylenol PM, and prescription sedatives
- Treat pain with analgesic such as Tylenol, per physician direction. Unreported and untreated pain is often a reason for sleep disruption in persons with dementia.
- Permit mid-day naps but for no longer than 20-30 minutes
- Attempt to re-program a normal sleep/wake cycle:
  - Increase exposure to bright light (lumens equivalent to bright daylight) in late am and early afternoon (9:30 to 11:30 AM and 5:30 to 7:30 PM)
  - Engage in mentally stimulating activities, social activities and exercise in late am and early afternoon, prior to peak sleepiness or signs of agitation
  - Use person-specific music prior to peak sleepiness or signs of agitation.
  - Use soft, slow tempo music at bedtime to promote sleep

## PATIENT INFORMATION

### SLEEP HYGIENE MEASURES

**These behavioral measures have been design to help you sleep without the use of medication. You doctor may ask you to try these suggestions in order to improve the quality and duration of your sleep.**

1. Try to maintain a regular sleep/wake schedule. It is particularly important to get up at about the same time every day.
2. Avoid afternoon or evening napping if you have difficulty getting to sleep at night.
3. Allow yourself enough time in bed for adequate sleep duration (e.g. 11:00 PM to 7:00 AM). Don't spend excessive time in bed hoping to get more sleep. Avoid forcing sleep. If you are unable to sleep for more than 15 minutes in bed, leave the room and read quietly in the other room until you feel the urge to sleep and then return to your bed.
4. Avoid alcohol and caffeine in the evening. Avoid smoking, especially in the evening.
5. Reserve the bed for sleep and sex. Don't do homework, watch television, or pay bills in bed.
6. Avoid stressful activities at bedtime. Develop a relaxing and enjoyable routine prior to retiring to bed. (e.g., reading, television).
7. Minimize annoying noise, light, or temperature extremes.
8. Consider a light snack before bedtime. Avoid heavy meals too close to bedtime, since this may interfere with sleep.
9. Regular exercise in the late afternoon may deepen sleep. Vigorous exercise within 3-4 hours of bedtime may interfere with sleep.
10. Don't try harder and harder to fall asleep. If you are unable to sleep, do something else instead.
11. Minimize noise, light and excessive temperatures during sleep periods. Move the alarm clock away from the bed if it is a source of distraction.

#### **Sources of Information:**

- Presentation on *Sleep and Cognition* by Cynthia Phelan, PhD, RN, presented at Wisconsin Alzheimer's Institute, September 27, 2017
- Presentation on *Pain and Suffering in Dementia* by Jane Mahoney, MD, presented at Wisconsin Alzheimer's Institute, September 27, 2017
- National Sleep Foundation Sleep Quality Recommendations 2017
- Stanford University Medical Center, Stanford Primary Care Clinics Patient Information, Sleep Hygiene Measures, June 1, 2012