

SLEEP: Another Vital Sign for Good Health



By Wendy Webb Schoenewald
PT, OCS

We spend roughly one-third of our lives sleeping. Research reveals that sleep is a critical period for our body's recovery, supporting cardiovascular, neurologic, and other life functions. Sleep is a basic human need, and researchers are showing changing attitudes toward sleep behaviors. The Centers for Disease Control and Prevention has deemed lack of sleep to be a public health problem. It recommends 7 or more hours of sleep each night to promote a healthy lifestyle and reduce the risk of chronic diseases.

Should physical therapists be involved in promotion of sleep? When I initially evaluate patient, I always ask them "Is your pain or your dizziness affecting your ability to sleep?" It's evident to me after many years of practice that, if my patients aren't sleeping well or if their sleep is interrupted by pain or dizziness, then their healing, their attitude, and their ability to cognitively function will be negatively affected at work and even at therapy. Patients may also have difficulty remembering what I taught them for their exercises if they are not sleeping well.

Recent research agrees with what most therapists know well: sleep plays an important role in the proper functioning of most body systems. It is critical for immune system function, tissue healing, pain modulation, cardiovascular health, cognitive function, learning, and memory. When people do not sleep well, they can experience increased perception of pain, which leads to reduced function and quality of life. Poor sleep can also be associated with increased depression and anxiety as well

as reduced cognitive processing, which in turn is associated with an increased risk of fall or injury. Research shows that people who sleep less than 7 hours per night are more likely to have higher risk of heart attack, asthma, arthritis, and diabetes.

Patients with sleep disturbances report increased sensitivity to pain. There is a well-documented reciprocal relationship between sleep quality and pain perception: less sleep increases the perception of pain intensity, while improving sleep should reduce pain perception. This is why PTs address proper sleep positioning while educating their patients. For example, people with low back pain should sleep on their side with a pillow between their knees, without curling their spine into a "C" position. The spine should be maintained in a neutral or straight position. If patients have trouble with moving around in bed because of pain, it can add to sleep disruption. A physical therapist can teach patients how to log roll and sit up from a side-lying position so they do not twist their spine and cause pain.

Sleep apnea or chronic airway obstruction is a serious and prevalent sleep disorder that is estimated to affect 25 million Americans. It is associated with an increased risk of developing cardiovascular disease, including ischemic heart disease, arrhythmias, and stroke. This is because breathing stops temporarily during sleep apnea events, causing a decrease in the level of oxygen in the body, which then alerts the brain. The brain signals receptors, leading to constriction of vessels, resulting in increased risk of high blood pressure.

Sleeping position is important to reduce sleep apnea. For example, patients with sleep apnea should not sleep on their back because relaxation of the tongue can increase obstruction of the airway. Sleeping on their stomach or side with their head angled down helps open the airway and decrease episodes of sleep apnea.

Seventy-five percent of people with depression experience insomnia. Sleep disturbances are thought to contribute to depression and anxiety through several mechanisms including alterations in the regulation of neurotransmitter activity necessary during various

stages of sleep. In these cases, medications can aide in proper regulation. Regular aerobic exercise can also contribute to reducing depression and can decrease the risks associated with reduced sleep duration.

Sleep hygiene education is a critical piece of prevention, health, and wellness. Physical therapists can provide information to optimize sleep health and recovery from injury. Educating clients about sleep hygiene practices is an important step in helping them improve their quality of life. Some simple recommendations include:

1. Go to sleep and wake up at the same time every day to "reset" your natural biological clock. Your smartphone can even monitor this for you.
2. Use your bed for only sleep and sexual activity to help train your brain that, when you're in bed, you should be sleeping (this means do not work or watch TV in bed). Make your sleep environment comfortable and relaxing.
3. A relaxing bedtime routine such as taking a warm bath, reading a book, or doing some stretching can be helpful.
4. Avoid tea, coffee, and chocolate at least 4 hours before bedtime; this

can reduce the number of times you wake during the night.

5. Refrain from drinking alcohol or smoking at least 3-4 hours before bedtime; this can help you sleep more soundly since these are stimulants and can cause difficulty falling asleep.

6. Avoid daytime napping so that you are tired at night and can fall asleep easily. If you have to nap, limit it to 30 minutes or less.

7. Avoid moderate to vigorous exercise 2-3 hours before bedtime, though a regular program of exercise earlier in the day can help improve your sleep at night.

8. Avoid eating a large meal or spicy foods 2-3 hours before bedtime.

Getting a proper night's sleep is an essential practice for healthy living. Good sleep can potentially prevent chronic conditions by supporting your immune system and reducing pain perception. If you are having trouble getting a restful sleep, you should talk to your physical therapist or your doctor about what you can do to sleep better.

JPT: Sleep Health Promotion: Practical Information for PTs

https://www.cdc.gov/sleep/about_sleep/chronic_disease.html



Orthopedic and Sports Rehabilitation

Neck and Low Back Pain

Shoulder Tendinitis

Rotator Cuff Injury Repair

Joint Replacement

Sports Related Injuries

Concussion



1456 Ferry Rd, Suite 601, Doylestown, PA 18901

215 489 3234 • www.wwspt.com