

## Sleep and Fatigue after SCI

Studies have shown that approximately one-third of people with SCI complain of sleep disturbances, fatigue or daytime sleepiness. The high rate of fatigue in people with SCI is likely caused by disordered sleep.

### Causes of sleep disturbances in people with SCI:

- Frequent arousal or awakenings for care needs
  - Some care needs such as turning in bed or bowel and bladder management can lead to multiple interruptions in sleep, or fragmented sleep.
- Hormonal changes
  - Melatonin, the hormone that regulates the sleep-wake cycle, is often reduced in persons with high cervical SCI. Without enough melatonin, it can be difficult to fall asleep and wake up at normal times in a 24-hour cycle.
- Chronic pain
- Spasticity
- Depression
- Difficulties maintaining a normal body temperature.
- Some medications that people with SCI regularly take can disturb the sleep-wake cycle.
- Sleep apnea
  - Obstructive sleep apnea (OSA) is a sleep disorder in which breathing is briefly and repeatedly interrupted during sleep due to repetitive collapse of the muscles in the back of the throat, blocking the airway. (Since OSA is the most common kind of sleep apnea, most people refer to it as simply "sleep apnea.")
  - OSA is common in the non-SCI population, but several studies suggest that persons with SCI may be at higher risk due to changes in breathing related to the injury.
  - Some studies have found that up to 75% of individuals with SCI have OSA, with higher rates among those with cervical level injuries.
  - Other risk factors for OSA include increased age, obesity, increased neck circumference, sedative or alcohol use, and a family history of OSA.
  - Some medications, particularly those used to treat spasticity, may promote or worsen the development of OSA.
  - Treatment: Continuous positive airway pressure (CPAP) is the most effective treatment for OSA. CPAP is a device worn at night that delivers air to the upper airway via a facial or nasal mask to prevent narrowing and closure of the airway.

### If you frequently have trouble sleeping or are often tired and sleepy during the day, try the following approaches:

- Avoid eating or drinking anything close to bedtime.
- Stop consuming caffeine at least 4-6 hours before going to sleep.
- Adjust the room to a comfortable temperature, minimize noise interruptions, and darken the room as much as possible for sleeping.
- Develop a consistent bedtime routine or pre-sleep ritual to relax, and as much as possible, associate your bed with sleep.
- Avoid napping during the day.
- Minimize sedating medications, drugs, and alcohol.
- Try to increase your physical activity as much as possible.
- Consult with your health care provider to determine if you might qualify for a sleep study or CPAP device.
- Consider your mood and whether depression may be playing a role. If so, discuss it with your medical provider. Treating anxiety, depression and other mood problems often improves sleep.

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**Disclaimer:** This information is not meant to replace the advice from a medical professional. You should consult your health care provider regarding specific medical concerns or treatment.

The SCI Empowerment Project is funded by a grant from the **Craig H. Neilsen Foundation** to the Department of Rehabilitation Medicine, University of Washington, Seattle, WA.

