



Sleep and MS

Over 50% of people living with multiple sclerosis (MS) report sleep problems.

Not sleeping well can have a negative impact on your sense of well-being and make other conditions worse including:

- Depression, irritability and anxiety
- Pain
- Fatigue
- Problems with physical coordination
- Cognitive (thinking) problems

Sleep difficulties can also lead to poor work performance and traffic or workplace accidents. Severe insomnia can be life threatening.

What are the common sleep problems for people with MS?

- **Insomnia:** Difficulty with falling asleep or staying asleep; or sleep that does not make you feel rested.
- **Narcolepsy:** Falling asleep suddenly and uncontrollably during the day.
- **Restless Leg Syndrome (RLS):** Urge to move the legs because they feel uncomfortable, especially at night or when lying down. RLS is not due to spasticity.

- **Sleep Apnea:** Brief pauses in breathing during sleep, resulting in reduced oxygen flow to the brain and causing loud snoring and frequent awakening.
- **Periodic limb movement disorder (PLMD):** Involuntary movement of legs and arms during sleep.

What causes sleep problems?

Sleep problems can be caused by many different factors, including physical and chemical changes associated with multiple sclerosis.

Physical and chemical changes: The “internal clock” in the brain controls when people sleep and wake every day. For people with MS who have nervous system lesions, their brain may be less able to tell the body to fall asleep or wake up. Lesions can also affect the chemicals in our body that help us to sleep.

Changes in breathing control: Sometimes the brain’s ability to control breathing during sleep becomes altered by lesions in the brain or weight gain, resulting in sleep apnea.

Daytime sleeping: Napping for long periods during the day may disturb sleep at night. However, short naps are often helpful in managing MS symptoms and may improve sleep.

Inactivity: Lack of physical movement or exercise can worsen sleep.

Pain: Many people with multiple sclerosis also experience chronic pain. This discomfort may disturb sleep. Medications taken to relieve pain may also affect sleep.

Depression and anxiety: Depression is more common in persons with multiple sclerosis than in the general population. Sleep problems such as difficulty falling asleep and early morning waking are common symptoms of depression, anxiety, and other mood issues.

Alcohol: While alcohol may help bring on sleep, drinking alcohol before bedtime is likely to interfere with normal sleep rather than improve it. As a result, people who drink alcohol to help them get to sleep are at greater risk to wake up in the middle of the night, and to not feel rested in the morning.

Caffeine and nicotine: Nicotine from tobacco may cause sleep disturbances and is often overlooked. Caffeine can disturb sleep when consumed in the afternoon or evening. Many soft drinks contain excessive amounts of caffeine.

Medications: A number of medications taken to treat other conditions, such as pain or anxiety, can alter a person's ability to get to sleep or stay asleep. Also, other medications can make people sleepy during the day and unable to participate in activities.

- *Prescription drugs* for treating asthma and depression may cause insomnia.
- Some *prescribed stimulants* that are meant to treat daytime sleepiness can

cause insomnia if taken too close to bedtime. This can often be avoided by adjusting the time you take the medication.

- Most *over-the-counter sleep medications* contain an antihistamine (commonly diphenhydramine) and are not recommended for people with brain-related disabilities like multiple sclerosis because they may cause disturbances in memory and new learning.
- Many *prescribed "sleep medications"* are recommended to be used only for the short term (about two weeks at most) to help someone sleep during a stressful time, such as while in the hospital.
 - ◆ Sleep medications are not approved for use by the FDA for long-term management of sleep because they can actually worsen sleep problems over time.
 - ◆ Many sleep medications are addictive and so the body builds a tolerance to them. This is especially true of the benzodiazapines, such as Xanax®, Librium®, Valium® and Ativan®.
 - ◆ Tapering your use of strong prescribed sleep medications must be done gradually and with medical supervision. **Abruptly stopping your sleep medications can be very dangerous.**
 - ◆ If you have concerns about how your medication is affecting your sleep, consult your health care provider to discuss alternatives.

What can be done to improve your sleep?

Changes in behavior and environment are the first step to treating sleep difficulties. Try suggestions below to find out what works best for you.

Daytime suggestions

- Set an alarm to wake up at about the same time every day.
- Limit long periods of inactivity such as sitting and watching TV.
- Exercise every day. People with MS who regularly exercise report fewer sleep problems. See the factsheet on Exercise and MS to learn more.
- Get outdoors for some natural sunlight during the daytime.
- Limit long naps during the day.

Nighttime suggestions

- Go to bed at about the same time every night.
- Follow a bedtime routine. For example, brush your teeth and then read or listen to relaxing music for 10 minutes before turning out the light.
- Avoid caffeine, nicotine, alcohol and sugar for at least five hours before bedtime.
- Limit eating before sleep to allow time to digest, but also do not go to bed hungry, as this can also wake you from sleep.
- Do not do strenuous exercise within two hours of bedtime. However, stretching, yoga, meditation, or a warm bath before bed may help with sleep.

- Do not eat or watch TV while in bed.
- Keep stress out of the bedroom. For example, do not work or pay bills there.
- Limit your screen time. Try turning off cell phones, computers, TVs at least an hour before bed.
- Create a restful atmosphere in the bedroom, protected from distractions, noise, extreme temperatures and light.
- Use earplugs if noise keeps you awake or wakes you up during the night.
- If you go to bed and don't fall asleep in 20 minutes, try getting out of bed and doing something relaxing or boring until you feel sleepy.
- Make sure your bed and pillow are suitable and comfortable for you.

Talk to your health care provider

If your sleep problems persist, talk to your health care provider to have your sleep problems evaluated and explore safe and effective solutions. An evaluation of sleep problems should include a thorough history of such problems, medication review, an assessment of your bedtime routines, a comprehensive medical evaluation, and, if needed, a sleep test.

Before recommending any action, your health care provider will explore with you a variety of possible causes for your sleep problems, including pain or depression. Based on your evaluation, your health care provider will be able to make a personalized treatment plan to help you achieve restful sleep.

Treatment options

Non-pharmacological therapies

- If mood issues such as anxiety or depression are causing sleep difficulties, counseling (psychotherapy) may be an appropriate treatment.
- For those with anxiety, relaxation therapy and meditation exercises can help create a restful environment both in your bedroom and in your body and mind.
- Research has shown that the use of special bright lights (phototherapy) can promote sleep. Exposure to these lights at specific times in the day, may help you sleep more at night. Consult with your health care provider first, as these lights can cause eyestrain and headaches.
- Some people with MS have found over-the-counter natural remedies are effective. Herbal teas such as chamomile, melatonin and valerian may be useful in improving sleep, and these are sold in health food and drug stores. However, these remedies have multiple drug interactions, and you should consult your doctor or naturopath before using them.

Medications

If making lifestyle changes or non-pharmacological therapies do not work, ask your health care provider about medications that can help you sleep through the night or keep you awake during the day.

Special care is necessary when choosing a medication in order to avoid daytime sedation, worsening of cognitive and behavior problems or addiction.

References

Bamer, AM., Johnson, KL., Amtmann, D., Kraft, GH. (2008). Prevalence of sleep problems in individuals with multiple sclerosis. *Multiple Sclerosis*, 14: 1127-30.

Resources

Sleep Foundation.

<http://www.sleepfoundation.org/>

Brain Basics: Understanding Sleep – NINDS/NIH. http://www.ninds.nih.gov/disorders/brain_basics/understanding_sleep.htm

University of Maryland Sleep Hygiene: Helpful Hints to Help You Sleep. http://www.umm.edu/sleep/sleep_hyg.htm

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.

Authorship

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