

Headache Toolbox

Sleep Disorders and Headache



Insomnia, difficulty with falling or staying asleep, is the most common sleep complaint among patients with frequent headaches. Insomnia can be related to conditions common among headache patients, such as depression, anxiety, lack of exercise, and medications that make good sleep harder to achieve.

Patients with chronic migraine, which includes headache 15 or more days per month, report having almost twice the rates of insomnia as those with less frequent headaches. Rates of sleepiness in the daytime and snoring are also more frequent in those with frequent headaches.

Patients with chronic headaches are more likely to be depressed or anxious, which can further worsen sleep problems. Separating out all these issues is sometimes necessary, but also addressing all of the problems without just focusing on only one area is more likely to result in success.

Clues to there being a primary sleep disorder in addition to a headache disorder include snoring, gasping during the night, falling asleep during the day, and not feeling rested upon awakening. The overwhelming need to move one's legs when trying to sleep can further disrupt sleep, and is frequently associated with restless legs syndrome.

Before a doctor visit to address a possible sleep disorder, it is useful to have a sleep diary in hand. Write down the activities in the hour before bed, the time it takes to get to sleep, the number of awakenings, the total sleep time, and the impression of being rested or tired the next day for each day of the week. Include evening meal times, exercise, and activity in the 4 hours prior to falling asleep. Caffeine intake, energy drinks, weight loss supplements, and any migraine medications, especially those containing caffeine, need to be recorded.

Bringing this diary to the office visit can sometimes lead to effective changes that do not involve taking another medicine, and targeted changes can enhance well-being and function throughout the day. Many find that if they can improve sleep time and quality of sleep, headaches do improve.

If the sleep log seems to suggest possible sleep apnea, restless legs, or another sleep disorder that requires monitoring for a definitive diagnosis, a formal sleep evaluation will be recommended. While sleeping, the patient is monitored for irregular breathing, temporary obstruction of the airway while relaxed, levels of oxygen, or involuntary movement of the arms or legs while sleeping. Based on these findings, behavioral changes, airway devices, or medicines may be recommended.

Many times, consistent behavioral changes are needed for those with headaches and sleep problems. Those with chronic headache tend to cut back on physical activity because exercise temporarily seems to worsen headaches. People with frequent headaches often spend more time resting, lying down, or sitting. This in turn results in being less tired at night. Naps during the day are common. Lack of activity and exercise can worsen depression and anxiety, further adding to difficulty falling and staying asleep.

Engaging in restful and non-stress producing activities before going to sleep can set the stage for a better night's sleep. Computer activities, mobile phone devices, and stress-producing work should be avoided in the hour before sleep. The aim is to set aside enough time for 7-8 hours of sleep. This is better achieved by going to bed within an hour of the same time every night, and getting up at similar times.

A not uncommon migraine problem is sleeping in on weekends after a long week of not getting quite enough sleep. Catching up on sleep often leads to a wake-up weekend headache, which is frustrating, as this is the time people want to be with their families, run errands, and have fun. This headache coming on after stress has decreased is called let-down headache, and it is unfortunately common.

Also common is wake-up headache. The most common time for migraine to occur is in the early morning, and many times people will sleep through the time when a headache is beginning to emerge. By missing the best time to take migraine medicines, which is early in the headache, the medicines are less likely to be effective. Individuals who take their pain and headache medications too frequently,

Table.—Common Medications Used to Help Insomnia

Medicine	Dosage	Advantages	Disadvantages	Headache benefit?
Melatonin	3-10 mg	Cheap, no prescription needed	Not always effective	Probably not with migraine, cluster maybe
Amitriptyline	10-50 mg	Cheap, flexible dosing, helpful for chronic pain and headache	Weight gain, dry mouth, can feel hung over next morning	Yes for migraine, cluster no
Trazodone	25-100 mg	Cheap, flexible dosing, can be used as needed	Dry mouth	Probably not, although perhaps some benefit in children
Gabapentin	100-600 mg	Cheap, flexible dosing, helps restless legs and chronic pain	May become less effective with time	Maybe
Zolpidem	5-10 mg	Can be used as needed	Controlled substance, habit forming, can result in temporary memory problems, abnormal sleep behaviors such as walking, driving, and impaired judgment, avoid with alcohol	No
Lorazepam, alprazolam (benzodiazepines)	Varies	Can be used as needed, decreases anxiety	Controlled substance, habit forming, loses effectiveness with time, affects memory, avoid with alcohol	No

that is, have *medication overuse headache*, can experience their medications wearing off during the night, triggering a headache. Most over-the-counter and narcotic pain medications wear off in 4-8 hours, making people most vulnerable during the early morning, particularly if overusing these medications.

There are unusual headache disorders closely timed to sleep hours. For instance, cluster headache is often called the alarm clock headache, as it will wake a sufferer at a similar time every night with excruciating pain. There may be a link between cluster headache and sleep apnea, with the drop of oxygen while sleeping possibly triggering an attack. Another headache disorder linked to sleep, typically occurring a few hours after falling asleep, is hypnic headache, mostly affecting the elderly. This is sometimes treated with a dose of caffeine before bed, which is sort of a paradox.

For most people, frequent intake of caffeine leads to a worsening of a sleep disorder. The caffeine wears off during the night, resulting in a caffeine withdrawal headache. If caffeine is taken too close to bedtime, it can worsen

insomnia with trouble falling asleep and restless awakenings. Many over-the-counter migraine medications, as well as butalbital combination tablets, contain caffeine, leading to rebound headaches, withdrawal headaches, and insomnia.

If behavioral changes are insufficient, medications can be helpful. It is best to go with a medication that is not habit forming, and will not have side effects the next day. The sleep-inducing effect of some medications wears off over time, so these would not be best for long-term use (Table).

In summary, headaches and sleep disorders can be closely linked. Examine your activities as you prepare for sleep, exercise habits, intake of caffeine, and other stimulants. Keep a log of your sleep patterns and your headaches, and bring it in to discuss with your provider. Note whether you snore or gasp at night. Behavioral changes are safe and can lead to better health. Medications, carefully chosen, can improve sleep if behavioral changes are not fully effective.

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To find more resources, please visit the American Migraine Foundation