# What’s the Link Between Migraine and Sleep Problems?

by BARBARA LEECH

## Migraines and Sleep Issues

Could poor sleep quality be causing your migraines? I have always felt that my reoccurring migraine headaches were connected in some way to sleep issues.

I’m not the best sleeper. So, whether it is a migraine that seems to be triggered by too little sleep, or a few nights of poor-quality sleep, it often seems that my sleep patterns are part of what triggers my next headache or a good indication that a migraine is in my near future.

### Can Sleep Patterns and Quality of Sleep Be a Trigger?

I recently learned that many doctors believe there is a strong association between poor sleep and the frequency and intensity of migraine and other pain syndromes.

Insomnia and other common types of sleep difficulties include: sleep apnea, chronic snoring, and excessive daytime sleepiness. Insomnia is defined as a severe difficulty falling asleep or staying asleep, early morning waking, or waking up feeling unrefreshed. It is reported to be a common condition suffered by individuals who also have chronic migraine.

Research has also suggested that if someone suffers from other conditions that cause chronic pain (I suffer from lupus, fibromyalgia, migraine and thyroid issues) you are more likely to also suffer from insomnia and migraines. The theory here is that pain disrupts sleep and eventually sleep patterns form, affecting you even when you might not be in pain.

### What the Research Says

Until recently, this relationship between insomnia and migraine was not well studied. But one recent study conducted by the University of North Carolina Chapel Hill looked at the association by conducting interviews with 147 adults with transformed migraine (TM).

None of the patients could say they felt refreshed upon awaking each morning, and four out of five regularly felt tired when they woke up each day. This was compared with responses from people with infrequent migraines: approximately one in four felt refreshed upon waking and only about one in three awakened feeling tired.

In this survey, two-thirds of those who had more than 15 days of migraine pain each month also suffered from insomnia. Researchers also asked about caffeine consumption and the before bed habits of the sufferers, and the majority did not consume caffeine in the eight hours prior to going to bed and they did relaxing activities before trying to sleep.

So, in other words, they were not causing their insomnia through bad habits. They were doing all the right things

and still could not fall asleep easily.

According to the study, these findings represent typical sleep issues for those with frequent, severe migraines, especially those needing medically prescribed headache medication for their migraine pain.

**Are Sleep Issues and Migraines Genetic?**

There is research that indicates sleep challenges and migraines could be genetic. About 10 years ago the National Institutes of Health identified a gene responsible for a rare sleep disorder in a Vermont family. The family members also often suffered from migraine with aura.

Dr. Louis J. Ptácek and his colleagues focused their study on the family's sleep disorder, a condition called "familial advanced sleep phase syndrome," which basically makes people become what most call early birds. Essentially, they go to sleep early and wake up unusually early each day.

*Next page: making good sleep habits.*

**Are Sleep Issues and Migraines Genetic?**

Ptácek's team found that the affected family members had a gene mutation, specifically in an enzyme called casein kinase. The enzyme is a key factor in regulating normal sleep-wake cycles, of many species, from mice to humans.

In a subsequent study done by Ptácek, this enzyme was looked at in relationship to migraines.

First the study looked at the enzyme in the original 14 family members of the first study, and of those members, five suffered with migraine with aura. The scientists then sequenced the mutation in blood samples from 70 additional families that also were diagnosed with this rare sleep disorder. Similar numbers were discovered.

**What Does It All Mean?**

Though I don't have a rare sleep disorder, I do have periods of time where my internal clock goes haywire. I have periods of insomnia; I have nights where I wake every 45 minutes, never entering into a deep restful sleep.

I feel the affects the next day in my clarity of thought and even my muscles and joints. I have also noticed that within 24 hours, I feel a migraine coming on. Coincidence? I have to wonder.

**Migraine and Sleep Habits**

The UNC researchers conducted a follow-up study to see if making changes in sleep patterns could have an effect on migraine frequency and intensity.

The study focused on 43 women with chronic migraine, splitting them up into two groups. The first group received formal instructions on how to improve their sleep habits and the other group received placebo instructions that would not really help sleep.

All the women kept a diary of their headaches, and six weeks later the study found that those in the group who changed their sleep behavior for real improvement saw a significantly smaller headache frequency and intensity. In contrast, nobody in the placebo group had such a dramatic change.

Here is a look at those formal sleep instructions given to the patients to improve their sleep quality:

1. Schedule consistent bedtime that allows eight hours of sleep in bed.

2. Do not watch TV, read, or listen to music in bed — it can create a conditioned response in your body that bed is for a lot more than sleep.
3. Relax before bed — creating a relaxing bedtime ritual, such as a warm bath, reading, soft music, yoga, or prayer can all be helpful techniques.
4. Move your last meal to at least four hours before bedtime, and limit fluids within two hours of bedtime.
5. Avoid napping, but if you can't limit it to no more than 30 minutes before 3 p.m., unless you are very sick or suffering a horrible migraine.

Also, try and to make your bedroom more conducive to sleep. Keep you door closed and block out noise by running a fan or playing a white noise app (you can download them onto your phone or device for free). Make certain the temperature of the room is comfortable for sleep, and try and keep the bedroom as dark as possible.

Other tips include:

- Exercise at least 30 minute daily and stay active, but keep it five to six hours before bedtime.
- Avoid or limit caffeine and alcohol.
- If you suffer from other conditions that cause chronic pain, it is important to adequately treat that pain so it's not keeping you up at night.

I have started to pay closer attention to my sleep habits and I have seen an improvement in the frequency of my headaches, though not the intensity when I still get them. I think it takes a combinations of factors to trigger severe migraines, but that many sufferers could at least benefit to some degree from improving their sleep habits.