

# OPTIMAL HEALTH UNIVERSITY™

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## The Chiropractic Approach to Insomnia

*Insomnia can adversely affect physical and mental health, impair the immune system and even reduce lifespan. Many people turn to medication in search of some Z's, but over-the-counter and prescription drugs are often unsafe and ineffective. Your doctor at Duluth MultiCare suggests the following natural, drug-free approaches to better sleep.*



### Understanding Insomnia

Insomnia is a sleep disorder marked by problems with falling asleep or staying asleep — as well as with obtaining quality. A common complaint, insomnia may be occasional, short-term or chronic.

Occasional or short-term insomnia is often provoked by illness, stressful life events, hormonal fluctuations or medications. It may also be triggered by environmental disruptions such as light, sound or extreme temperature.

Chronic insomnia, a sleep disturbance lasting for months or even years, can be a side effect of psychological disorders or other chronic health problems.

Injury — both short-term and chronic — can wreak havoc on sleep quality, according to scientific studies (*Sleep Med Rev* 2001;5:385-96). If you're tossing and turning in an attempt to quell pain, schedule a chiropractic checkup today. Chiropractic adjustments can alleviate your aches and prevent them from recurring.

Lack of sleep can even shorten your life. A study presented this year at the annual meeting of the Associated Professional Sleep Societies in San Antonio, Texas, followed more than 2,000 individuals for 11 years. The investigators found that the mortality rate was an astonishing three times higher among study participants suffering from chronic insomnia, compared with those getting adequate sleep.

### Chiropractic Care Improves Sleep

Besides educating patients about lifestyle factors that support adequate sleep, your doctor at Duluth MultiCare also checks the spines of patients who complain of sleeping troubles. Why? Because exciting preliminary research links insomnia with subtle dysfunctions in the spine called **vertebral subluxations**. This common condition is corrected with gentle, specific maneuvers called **chiropractic adjustments**.

The study pooled data on 221 patients being cared for by 15 chiropractors. According to the findings, "one third of the 154 patients who completed the semistructured interview reported their sleep pattern was changed immediately after their chiropractic adjustment. All but one of these 52 patients reported improvement." In the 20 patients with insomnia, improved sleep was noted in the six days following the chiropractic adjustment (*J Manipulative Physiol Ther* 2005;28:179).

How might chiropractic adjustments aid sleep? Your doctor at Duluth Mul-

tiCare explains to patients that researchers speculate that vertebral subluxations may interfere with the transmission of nerves, which enter and exit the spinal cord between gaps in the spinal column. Scientists theorize that this interference may disrupt the body's natural balance.

### Sleeping Pills: Not the Answer

Many people reach for over-the-counter or prescription sleeping pills every night in hopes of quality rest. However, a study from the National Institute of Health shows that these medications only hasten nodding off by an average of 18 minutes.

Your doctor at Duluth MultiCare questions whether the risks associated with sleeping pills are worth so little extra sleep. Side effects of these drugs are numerous and can include walking, eating or even driving while asleep. As a result, falls and other injuries are more likely when using sleep aids.

Lingering daytime sleepiness after using a sleep medication is also dangerous — some drugs continue to impair driving ability for as long as 17 hours after they are taken. Finally, many of these medications are highly addictive and may cause withdrawal symptoms when discontinued (*Addiction* 2003;98:1371-8).



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## Setting the Stage for Sleep

Consider your bedroom environment, starting with its temperature. As your body prepares for sleep, blood vessels dilate, the core temperature drops, and the increased blood flow carries heat to the periphery of the body. This process of heat redistribution, called thermoregulation, occurs most efficiently in a cool room.

Try encouraging dilation of blood vessels by wearing socks or using a hot water bottle to ensure that your feet — the body part with the poorest circulation — are warm enough for good blood flow throughout the body. A warm shower or bath up to two hours before bed also encourages slumber by temporarily raising body temperature. The sharp drop in temperature afterwards signals to the body that it is bedtime.

Light and noise also interfere with quality of sleep. Light exposure suppresses the body's production of melatonin, a hormone that is usually present in higher levels at night to promote sleep (*Nutr Neurosci* 2009;12:233-40).

Use room-darkening curtains or a sleep mask to ensure total darkness as you sleep. Also avoid television or computer use close to bedtime as the bright light from their screens may interfere with normal cycles of melatonin production. Noise can also prevent a good night's sleep — studies show that background sounds over 50 decibels shorten sleep time. That's about as loud as a dishwasher in the next room.

## Lifestyle Factors

Your lifestyle during the day also influences nighttime slumber. For starters, researchers find that regular, moderate-intensity exercise during the day ups your chances of sound sleep at night (*JAMA* 1997;277:32-7).

While vigorous exercise too close to bedtime may keep you up, a short, gentle yoga or stretching routine just before retiring relaxes the body and mind.

Stress is another daytime factor that impedes nighttime rest. Clinical trials associate insomnia with increased bodily production of cortisol, the so-called "stress hormone" (*J Clin Endocrinol Metab* 2001;86:3787-94).

Additional findings point to the need for stronger coping skills to counter stress-related insomnia — sleep is out of reach for some not because of the number of stressors they experience but because of their perceived lack of control over them. Journaling about the day's events and concerns before bed is one way to put stress aside and prepare for sleep.

What you choose to drink when awake also has the power to influence sleep. Many people turn to coffee or other caffeinated beverages to stay alert throughout the day. However, regular caffeine consumption disturbs the endocrine system. Caffeine may disrupt production of melatonin and other hormones, disturbing sleep (*Pharmacol Rep* 2007;59:296-305).

And, if you have trouble sleeping, you might want to rethink that glass of wine — while it may make you drowsy for a while, alcohol causes the nervous system to gear up as if anticipating a stressful situation. This could prevent you from reaching the deepest stages of sleep and cause you to wake during the night (*Presse Med* 1994;23:485-9).

Finally, try to reduce or eliminate use of any unnecessary medications. Many drugs have a myriad of side effects associated with sleep disorders.

## Natural Alternatives

If you are still experiencing insomnia after fine-tuning your sleep environment and overall lifestyle, consider trying one or more of the supplements that support healthy sleep. For instance, research suggests that the body uses calcium to maintain deep sleep. To properly absorb calcium you'll also need magnesium and vitamin D (*Proc Natl Acad Sci USA* 2004;101:18195).

Melatonin, the hormone that regulates the sleep cycle, may also help. Melatonin supplementation is generally

considered a safe therapy for insomnia (*Pol Merkur Lekarski* 2004;17:523-7).

Two amino acids — 5-HTP and L-tryptophan — are used by the body to create melatonin and are available as supplements. Tryptophan is also available in most protein-based foods.

Researchers have uncovered another amino acid, L-theanine, that is capable of reducing physical and mental symptoms of stress, paving the way for better sleep. L-theanine is found in green tea and available as a supplement (*Biol Psychol* 2007;74:39-45).

As for herbs, valerian is a centuries-old choice for encouraging sleep. A review of modern studies on its efficacy for insomnia shows mixed results, but it is generally considered a safe herb to try (*PLoS One* 2007;2:e1040).

Kava-kava, a plant traditionally used to make a relaxing beverage in many Pacific Ocean cultures, shows clinical promise in enhancing quality of sleep (*Psychopharmacology* 2005;180:564).

Other herbs to consider for relieving insomnia include chamomile, hops and wild lettuce.

*Note: Never begin any supplementation regimen without first talking with your doctor of chiropractic or other health-care professional.*

## Is It More Than Insomnia?

While insomnia is usually treatable with the methods described here, long-term insomnia could be a symptom of disorders like depression and sleep apnea. For insomnia that does not respond to home treatment, consider having a sleep study performed to diagnose or rule out such conditions.

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