Why is My Insomnia Worse in Winter? Your Cold-Weather Sleep Questions Answered

Cold weather and short days pose some very specific challenges for sleep.

December 9, 2019 By Michael Breus, PhD

Winter and sleep seem made for each other. Cold temperatures, and long, dark nights, all seem tailor-made for a great season of sleep. The truth about winter sleep is a quite a bit more complicated. Cold weather and short days pose some very specific challenges for sleep.

For example, I heard from a reader in Ohio just the other day, wondering why her insomnia is so much worse in the winter than in the warmer months.

I thought I'd answer her question here, along with a few other winter-sleep questions that come up a lot among my patients. Let's dive into a little winter-sleep Q&A!

Q: Why is my insomnia worse in winter?

A: In her note to me, the reader pointed to several possible reasons for her escalated winter insomnia: "I feel like the cold temperatures and dry air is to blame. (Also, the lack of sun)."

She's absolutely right, on all counts. Cold outside temperatures can create problems for indoor sleep environments. Running the heat constantly leads to dry air that can irritate the nose and throat, making you more likely to wake throughout the night. For bedrooms that run dry in winter, humidifiers can help.

Wintertime bedrooms that are too cold—or too warm—will interfere with your ability to fall asleep and stay asleep. Remember, temperature plays a critical role in sleep. (Here's my recent rundown on the role thermoregulation plays in sleep.)

An optimal sleep temperature for most people is 68-72 degrees Fahrenheit. I find that in winter, my patients are as likely to have problems being too warm as being too cold. Loading up on blankets and warm pajamas can easily lead to an overheated sleep space, and trouble falling and staying asleep. Our bodies are biologically wired to lower core body temperature as part of moving toward sleep. Keeping things too warm can interfere with that important drop in body temperature, and keep you awake. A warm bedroom also may impede melatonin production,

contributing to insomnia. As research, including this 2018 study, shows, cooler temperatures stimulate the production of melatonin.

Lack of sun exposure is another winter sleep hazard, particularly for people in more northern regions. I'll talk more in depth about how diminished light interferes with sleep in a minute.

Medications that get used more often during the winter months, including cold, flu and pain medicines, can lead to more frequent problems with sleep. Some medications create excessive drowsiness, while others are stimulating and can lead to insomnia-like symptoms. It's important to know how the medications you're taking affect your sleep.

Q: I want to sleep A LOT more in wintertime. Is that okay?

A: I hear this from patients and readers a lot. Broadly speaking, your sleep needs do not change from season to season. If you're sick, you may need to sleep more for a few nights. But winter does not bring a need for additional sleep.

What it does bring, often, is an increased inclination to sleep. Why do so many of us feel a stronger desire to sleep more during the winter? There are a couple of issues that are likely at play.

Circadian rhythms can be easily disrupted during winter, a result of both biological and behavioral changes that disrupt bio clocks. Melatonin production can change during the winter, thanks to short days and limited sunlight (along with extended periods of darkness). Hormones produced during daylight, wakeful hours including serotonin and cortisol, can also change, with less of these alerting, energizing, mood-lifting hormones being made in the body during dark winter months. These and other biological changes may result for some people in changes to energy levels and a greater inclination to sleep.

It's a temptation that can be difficult to resist, but it's important to stick to your normal, consistent sleep schedule throughout the winter. (That's after you've determined what your optimal sleep schedule is, and know your chronotype—use my bedtime calculator to help you find out your ideal sleep routine, and learn your chronotype at www.chronoquiz.com.) Making changes to sleep routines—going to bed earlier, staying in bed for longer, napping a lot—can cause further disruption to bio clocks and circadian rhythms.

Getting plenty of light exposure during daylight hours can help you maintain more restful sleep and a more positive mood throughout winter. Light exposure first thing in the morning will inhibit melatonin production and stimulates cortisol. Using light to reinforce these hormonal changes will help keep bio clocks functioning in sync. That's going to give you more energy during the day and make it easier to fall asleep at night, with more refreshing, restorative rest.

Sunlight is ideal. But it's also an option to supplement natural light exposure with well-timed artificial light exposure to stimulate your wakefulness during morning and midday. Light therapy is often used in cases of circadian rhythm disruption and seasonal depression; talk with your physician or a sleep specialist about how to use light therapy effectively.

Q: I lose my motivation for taking care of my sleep (and my diet and exercise routine), during winter—why?

A: This is such a common challenge for people during the winter, one that can affect how you sleep, how you think and feel, your performance and productivity. Even people who don't struggle with mood issues throughout the rest of the year can experience seasonal affective disorder (SAD), also known as winter depression or the "winter blues."

I see a wide range of severity in my patients with SAD. For some, it presents as a major depression. For others, it shows up in subtler sense of weariness or sadness, lack of motivation for things like exercise, diet, and socializing, and a more negative outlook. All levels of seasonal affective disorder can disrupt sleep—and all deserve attention and treatment.

People with SAD have been shown to have significantly more sensitivity to light—and the absence of light—during the winter months. They also show longer periods of daily melatonin production during the winter, which can contribute to an increased need for sleep, more sleep disruption, and unwelcome changes to mood. But it's not clear that short days and lack of light are the only causes of SAD. Scientists are still working to understand better why SAD occurs and what drives this form of seasonal depression.

Signs of seasonal affective disorder should be addressed with a physician. They include:

- Feelings of sadness, hopelessness, anxiety
- Lack of motivation and interest in daily activities
- Changes to eating habits, appetite, and weight
- Trouble concentrating

- **Disrupted sleep: Winter SAD will often be accompanied by excessive sleep (also known as hypersomnia), but can also include insomnia**

I'll talk more in depth soon about the science of SAD and sleep—what we know, and what we still need to learn. The big takeaway here? Don't suffer in silence. Talk to your doctor about your winter mood and how it is affecting your sleep.

Q: Can fixing my sleep help me avoid gaining weight this winter?

A: The short answer is YES. Sleeping well and maintaining a healthy weight go hand in hand, winter and summer and every day in between. I wrote recently about the complicated, surprising relationship between sleep and self-control, and how it affects weight gain. (Hint: when we're sleep deprived, our self-control is severely compromised, and that has a major effect on our waistlines.) I also wrote a book about the sleep-weight connection, ***The Sleep Doctor's Diet Plan: Lose Weight Through Better Sleep***.

Healthy, sound sleep is always an important tool in managing weight and avoiding weight gain—but it's perhaps especially important during winter. Eating habits and appetites change during the winter. Studies show calorie intake goes up during the winter months. There are also seasonal changes to our hunger hormones. Levels of the hunger-stimulating hormone ghrelin go up in winter, while levels of leptin—the hormone that produces feelings of fullness—go down.

If you crave more carbohydrates during the winter, you've got plenty of company. Our increased drive for carbs during this season may have to do with carbohydrates connection to serotonin. Carbohydrates increase serotonin production, which is diminished during the wintertime. Those winter cravings that are so difficult to resist may be the body's way of trying to lift a low, winter mood. Nighttime snacking can be especially tough to resist in winter.

You can have a snack at night. Just keep it light. Aim for about 200 calories maximum, with a mixture of complex carbohydrate and protein, and a limit on the sugar. My favorite nighttime treat? Nightfood. It's an ice cream with a recipe specifically designed to help sleep, with important amino acids and macronutrients. On the flipside, it doesn't contain any disruptive ingredients like caffeine or artificial sugars.

Another eating strategy to consider this winter, to keep weight in check, circadian rhythms on track, and sleep plentiful and sound? Intermittent fasting. I just recently talked about fasting and how it may benefit sleep. I've been using intermittent fasting with great success. Fasting has been shown to have a strengthening effect on circadian rhythms, and a capacity to keep circadian clocks synchronized. Fasting may also elevate mood, benefitting sleep indirectly. And research shows intermittent fasting can help with weight loss and improve cardiometabolic health. Fasting has been shown to improve rein in appetite and reduce cravings for sugar, improve insulin sensitivity, reduce blood pressure and cholesterol, lower inflammation.

What are the best natural remedies for winter sleep troubles?

I can't talk about winter sleep tips without discussing Vitamin D. Across the US, an estimated 50 percent of adults and kids have a Vitamin D deficiency. Low levels of Vitamin D are especially common in the winter, particularly for people in northern regions.

In addition to its broad benefits for health (stabilizing mood, supporting healthy bones, strengthening immune function), Vitamin D enhances sleep. Studies show a lack of Vitamin D reduces sleep time and worsens sleep quality, making sleep more restless. Vitamin D is involved the body's production of both melatonin and serotonin, two hormones critical for healthy sleep-wake cycles, both of which can be under-produced by the body during winter.

If you haven't already had your Vitamin D levels assessed as part of your physical, ask your doctor to perform that blood test. This is particularly useful for people in northern climates, or anyone experiencing symptoms of Vitamin D deficiency, including tiredness, pain and stiffness in bones and muscles, and an overall feeling of being under the weather.

Working with your doctor, you may determine that Vitamin D supplements are right for you. But

don’t overlook the single most plentiful of Vitamin D: sunlight. Getting exposure to natural light during the winter will help reinforce circadian rhythms, elevate mood, and boost Vitamin D production—all roads that lead to better sleep.

I just recently talked about the sleep-promoting power of terpenes, which are found in thousands of plants, many of which have therapeutic effects for sleep. Understanding how terpenes and other components of botanical, natural therapies work is how you can have the most informed conversation with your physician about the natural sleep remedies that are a best fit for you.

Sweet Dreams,

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The Sleep Doctor

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