

# Is Icing Your Vagus Nerve the Secret to Better Sleep?

Stimulating your vagus nerve with an ice pack on your chest could help you feel relaxed at bedtime, but snuggling against a bag of frozen peas isn't the only way to improve your sleep.



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The secret to better sleep might be found in your freezer. Well, according to some TikTok users, anyway. The technique involves placing an ice pack on your chest for a few minutes, which supposedly leads to a more relaxed state that helps you drift off to slumberland.

It sounds like a lot of internet hype, but there may actually be some science behind this social media hack. The idea behind ice on your chest is that cold therapy can stimulate the vagus nerve, a cranial nerve that runs from the brainstem to the torso and helps regulate the body's **relaxation response** (known as the parasympathetic nervous system).

So should you try icing your vagus nerve for better shut-eye? Here's what the experts have to say.

## How the vagus nerve affects our sleep

You'd need to write several textbooks to cover all the things the vagus nerve affects in our body. But when it comes to understanding its impact on our sleep, you can focus in on its role in one key area: the parasympathetic nervous system. When it comes to this network of fibers, sometimes described as the body's "rest and digest" system, 75% are carried by the vagus nerve.

The **parasympathetic nervous system** can lower your heart rate, constrict your pupils and reduce the amount of light that enters your eyes, and lighten the workload of your lungs, ultimately creating a sense of relaxation. It also provides a counterbalance to the body's sympathetic nervous system (better known as the "fight or flight" response), helping put you into a calmer state when it's safe to do so. That, in turn, could prime your body for a better night's rest.

You don't need to do anything to make your parasympathetic nervous system do what it's supposed to do. It's constantly working in the background without our even realizing it. However, finding ways to activate this system, such as by stimulating the vagus nerve, could help put you in a more relaxed state on demand.

## Icing your vagus nerve at bedtime: Does it work?

Experts say it's entirely possible that stimulating your vagus nerve could activate your parasympathetic nervous system and potentially lead to better sleep. One way to try stimulating the vagus nerve is by placing an ice pack on your neck or chest. The research on this sleep hack is still very limited, but a small study from 2018 found that applying something cold to the outside of the neck can slow down the heart rate and increase vagal nerve activation. Research has also shown that athletes also experience a boost in relaxation after they immerse themselves in cold water.

"The relaxation effect is a major factor in why stimulating the vagus nerve can help with sleep," explains **Dr. Stefanie N. Howell**, a senior neurologist at the Centre for Neuro Skills, who has researched sleep-wake disturbances and served as a reviewer for the Journal of Sleep Research. "But there's also some evidence that the vagus nerve is more directly related to the regulation of the sleep-wake circuitry in the brain."

She points to the use of vagus nerve stimulation devices as a treatment for epilepsy. These medical gadgets, which require surgery to implant, send mild electrical energy pulses through the vagus nerve to the brainstem at regular intervals to help reduce seizures. The devices also come with a positive side effect of improving sleep in some people.

"People with epilepsy sometimes **have too much REM sleep**. We've seen patients with epilepsy who have the vagal nerve stimulation device experience an improvement in daytime sleepiness and a decrease in their REM sleep," Howell adds.

Beyond treating epilepsy, vagus nerve stimulation devices are also used to treat depression and help with recovery after a stroke, but they're not yet used for sleep problems. That means the majority of people who want to try vagus nerve stimulation for improved sleep have to focus on indirect methods, like placing an ice pack on your chest. While these techniques are potentially helpful, they aren't all that precise, so there's no guarantee you'll get the results you're looking for. Even if you do get that relaxation you want ahead of bedtime, you may also trigger some of the other functions the vagus nerve is responsible for (like **managing parts of digestion**).

"The vagus nerve is an enormously important nerve that affects things from your gut to your breathing during sleep. The list of things it does goes on and on, and it's naive to think that you're going to press this one button of a thousand and hit the right thing and get a good night's sleep," says **Dr. Adrian Pristas**, a pulmonologist and sleep medicine practitioner at Hackensack Meridian Jersey Shore University Medical Center, and corporate medical director of sleep medicine at Hackensack Meridian Health.

It's not all bad news, though. For the most part, using an ice pack to stimulate the vagus nerve comes with little risk to your health, so it could be worth experimenting with for better sleep. Just watch out for frostbite from the ice pack — covering it with a cloth and leaving it on for **no more than 20 minutes** should keep you in the clear.

## Other vagus nerve stimulation techniques for sleep

Not into the idea of playing big spoon to a bag of ice when you're snuggled under your warm covers? There are

a number of other ways you can try stimulating the vagus nerve that don't involve anything frozen.

"You can do things like yoga and **deep breathing exercises**. Those indirectly stimulate the vagus nerve by stimulating other organs the vagus nerve innervates," says Howell. "Another interesting one is loud gargling with water or singing, both of which stimulate the vocal cords, which then stimulate the vagus nerve. Same thing goes with meditating or even laughing."

These techniques can be fun to play with and may help you get your zzz's a little more easily. However, if you're having problems with getting a good night's sleep on a consistent basis, you're better off seeing a doctor for answers than trying DIY vagus nerve stimulation, say Howell and Pristas.

Your doctor may suggest undergoing a sleep study or trying cognitive behavioral therapy for insomnia, which is the first-line insomnia remedy recommended by the **American Academy of Sleep Medicine**. Interestingly, some of the techniques taught through this therapy, such as **meditation and relaxation exercises**, can also stimulate the vagus nerve, while ultimately helping you develop good sleep habits.

"Rather than trying to do it on your own, getting a helping hand to learn these skills to help you relax and unwind can help get rid of the racing thoughts," says Pristas. "CBT for insomnia is a lot easier than an ice pack, and there's a lifetime of knowledge you can learn from it."

There's no harm in trying to stimulate your vagus nerve if you're struggling with a night or two of restlessness. However, it's important to keep in mind that it's not a guaranteed sleep fixer.

**Tagged: Wellness, Stress Relief, Sleep Tips, Sleep Aids**

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