Psychology Today

We Know What Can Restore Sleep

An important action you can take: Get your slow-wave sleep.

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KEY POINTS

- You get most of your slow-wave sleep during the first half of the night.
- It's more difficult to attain slow-wave sleep as we get older.
- Hypnosis may enhance slow-wave sleep.

By David Spiegel, M.D., with Sarah Sherwood, M.A.

We all know sleeping well restores our minds and bodies, but how much do we know about how the most critical part of sleep works? “Slow-wave sleep,” or that deep sleep you’ve heard of, has a particularly positive impact on what we need for things like memory or a better functioning immune system. During periods of this deepest stage of sleep, growth hormone is secreted to build the body, cell repair takes place, the brain cleans house, and our immune system

is strengthened. During this flu and lingering COVID season, one of the most important actions you can take for your body is to get enough slow-wave sleep.

You acquire most of your slow-wave sleep during the first half of the night. During this time, your family would find it difficult to wake you, and if they did, it would take a minute to concentrate. This particular type of sleep has been found to ward off memory problems, especially in older adults, with studies showing that those who don't get much slow-wave sleep have higher levels of tau and beta-amyloid, proteins in your brain that are linked to dementia and Alzheimer's disease. Scientists are studying this to see if deep sleep helps clear them out of the body.

Over a third of Americans are not sleeping well. According to the CDC, 35.2 percent of all adults in the U.S. report sleeping less than seven average hours a night, and for most people, that is not enough. Studies to date on deep sleep show that it is more difficult to attain slow-wave sleep as we get older and that effective tools to increase slow-wave sleep are much harder to find. But using hypnosis as a tool, particularly now when convenient technology is available to administer it efficiently and safely, can be valuable for those seeking relief.

The effective use of hypnosis for sleep dates back to the early 1800s. In 1841, Scottish physician James Esdaile who had used hypnosis to treat patients with various medical conditions, including effective general anesthesia during surgery, and insomnia, achieved great results. Esdaile found that patients under hypnosis fell asleep quickly and slept soundly throughout the night. This "first psychotherapy" has been studied for sleep ever since.

A recent study published in the journal *Nature* finds that enhancing slow-wave sleep in healthy humans using hypnosis profoundly affects the two major systems linking the brain with peripheral body functions: the endocrine and the autonomic nervous systems, which help us with deep sleep.

Most of the previous studies that seek to enhance slow-wave sleep have focused on its effects on the central nervous system. But looking at all the complexities of sleep and their health-benefiting effects, the *Nature* study found that enhancing our slow-wave sleep using hypnosis, particularly through suggestions you hear while falling asleep, profoundly affects peripheral body functions, including the endocrine and the autonomic nervous systems. The

brain and spinal cord receive and send information to other areas of the body, which allows us to react to stimuli in our environment.

During the study, researchers gave 23 young men hypnotic suggestions at the beginning of a 90-minute afternoon nap to promote subsequent deep sleep. It did that remarkably well, increasing the time spent in slow-wave sleep by 49 percent compared with controls, but it also profoundly increased the release of growth hormone by a factor of fur, and, to a lesser extent, prolactin and aldosterone. The hypnotized group also had an increase in their heart rate variability, a component of autonomic nervous system activity associated with self-soothing parasympathetic effects on heart rate that reduce stress so that more deep sleep was possible.

Other studies have shown that slow-wave sleep increases the number of helper and suppressor T cells that are an important part of our adaptive immunity responsible for fighting infection. Although hypnosis is not sleeping ('you are feeling very sleepy' is not the best means of inducing hypnosis), this age-old method can help you to sleep more deeply and also help your metabolism, cardiovascular activity, and immunity.

And it's not just for men. Women have also benefited from improved sleep due to self-hypnosis. A study two years ago in the *Journal of Women's Health* looked at the effectiveness of self-hypnosis for sleep among women who were going through menopause. The authors found that those who used self-hypnosis enjoyed a better quality of sleep than those who did not. A systematic review of the literature has reported a positive effect of hypnosis on sleep as well, without adverse effects.

But particularly fascinating in the *Nature* research is the fact that in the study, although the hypnosis technique was simple and easy, it had a significant impact throughout the body, including improved deep sleep and other related health aspects of sleep, demonstrating once more that using hypnosis for deep sleep can be deeply effective.

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