



Treating Migraines Without Painkillers

Biofeedback, Even Heart Surgery, Is Considered a Migraine Treatment

By SARVENAZ ZAND, M.D.

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For many people, a nagging migraine means turning to an over-the-counter pain pill like acetaminophen, or, in some cases, a prescription medication like Imitrex.

But recent advances in nondrug treatments, such as biofeedback and neurofeedback, have opened more options for headache sufferers. And something as seemingly unrelated as heart surgery may hold the solution for some people.

Here's a look at some nondrug alternatives to headaches.

Biofeedback: Changing Your Physiology

Biofeedback is a safe, drug-free alternative for the treatment of migraines, tension type headaches, chronic pain, sleep disorders and more. Receiving feedback from a computer, patients are trained to adjust physical features like skin temperature, muscle tension, heart rate or blood flow -- changes that can lead to decreased pain and stress.

"Biofeedback reduces the stress response and brings stability and calmness to the nervous system," said Dr. David Biondi, a neurologist and consultant in headache management at Massachusetts General Hospital. "I think it's very effective for migraines. Studies have shown that biofeedback can be just as effective as some of the preventive medications we use."

How well does it work? According to Dr. Barry Schwartz, director of the Headache Center in New Orleans, about 85 percent to 90 percent of patients with chronic headaches respond positively to biofeedback.

"Biofeedback also serves as an excellent bridge in assisting patients wean off medications," he said.

It's a method that worked for migraine patient Elizabeth Poe of New Orleans. She said she had suffered from about two migraines a week for the last 30 years. Her remedy used to be 12 tablets of ibuprofen a day, with the occasional prescription painkiller.

"After I started biofeedback, almost immediately I stopped having the headaches. Now I haven't had a headache in three years," she said. "Biofeedback got me off all the pills I was taking and taught me techniques that can help me relax and avoid headaches. I feel 1,000 percent better."

Got a Headache? Play a Video Game.

People with migraines may also benefit from neurofeedback. Neurofeedback is similar to biofeedback, but rather than sensing skin temperature or muscle tension, it measures brain waves. Patients undergoing the treatment look like they're playing an ordinary video game, but they're not using their hands.

Instead, patients are instructed to make the computer game "go" with their brains. Painless and noninvasive electronic sensors are placed on the earlobes and scalp. As desirable brain-wave patterns increase, the video game sends Pacmanlike characters across the screen, or some other reward is given.

Undesirable brain waves cause the video game to slow down or stop. Gradually, the brain "learns" the new healthy brain wave patterns to treat the underlying condition.

Neurofeedback may take 20 to 40 sessions that run about 45 minutes each to achieve benefits, which proponents say are permanent.

Which to choose? "Neurofeedback is as effective as biofeedback for treating headaches. Patients like both equally well," Schwartz said.

But skeptics say there may be no advantage to neurofeedback over biofeedback.

"We use both the skin temperature and muscle relaxation training with good results, and feel that there is no real gain from adding neurofeedback," said Dr. Seymour Diamond, director of the Diamond Headache Clinic in Chicago.

Since popping a pill is so easy, why would patients make the effort to undergo biofeedback or neurofeedback instead?

Patient Elizabeth Poe said the benefits made it worth continuing.

"It was very motivating when I saw progress. Biofeedback has really changed my life. I don't even carry pain medication around anymore."

Heart Surgery for Migraines?

Twenty percent of the general population has a small hole between the two chambers of their heart, known as a patent foramen ovale, or PFO. The defect can increase the risk of stroke, but it usually goes unnoticed and untreated. But it's getting a second look after scientists recently discovered that patients with migraines were three times more likely to have an unrecognized PFO.

Does this mean that cardiac surgery to repair the hole could be a new treatment for migraines? Next week, researchers in England will reveal results of a large-scale study comparing migraine sufferers who undergo PFO closure with those who don't.

"It's not a curative treatment, but it can take away one potential trigger for migraine with aura," said Biondi.

But Dr. Dawn Marcus, a neurologist at the University of Pittsburgh School of Medicine, is skeptical. While many patients have noted relief of migraine headaches after surgical closure of their PFO, she said "there are studies that show people who developed migraines or had their migraines worsen postoperatively."

What about the risks of PFO closure for the treatment of migraines?

"The way cardiologists are currently able to do reparative surgery is much better and safer than it was a few years ago," Marcus said. Previous techniques required surgically opening the rib cage, but cardiologists can now dam PFOs with an umbrellalike device that they thread up a vein from the groin to the heart.

To make a decision about how to treat migraines, Schwartz believes that patients should be told about alternative treatments for headaches -- treatments other than medications.

"People should be afforded the opportunity to make an informed decision."

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