The Doctor’s Remedy: Biofeedback for Stress

By ANAHAD O’CONNOR

Patients aren’t the only ones interested in alternative and complementary medicine. In an occasional series, Well talks to doctors around the country to find out what nontraditional medicines or therapies they sometimes recommend or use themselves.

Physician: Dr. Lawrence D. Rosen, chairman of the American Academy of Pediatrics Section on Integrative Medicine, and a pediatrician at the Whole Child Center in Oradell, N.J.

Recommended Remedy: Biofeedback devices for stress

What the Doctor Says: Biofeedback devices typically weigh only a couple of ounces and look something like an iPod. Pressing your thumb to sensors on the devices allows them to take your pulse and measure changes in your heart rate. The devices then use audible cues, flashing lights and graphics to guide you to breathe in a way that has a calming effect.

Dr. Rosen prefers using the emWave brand of biofeedback devices, which he says helps his nervous patients relax before operations. While he’s used he device successfully on people of all ages, children take to it especially quickly, treating it like a video game. Dr. Rosen said they get a kick out of watching the colors change as their breathing slows.

“I teach them really simple little breathing techniques, and we work on synchronizing their breathing with their heartbeat,” he said. “When they see the green light show up on the meter, that shows them that they’re doing it effectively. And when they need work, it’s at red. You can teach them how to control their breathing in a way that positively affects their heart rate variability. And not only do they feel more relaxed, but the body’s physiology changes. We can measure hormone levels that show that the body is in a less stressed state.”

Dr. Rosen, who has no financial or personal ties to the company that sells the device, Heart Math, said he’s tried other calming techniques with children but finds that they get distracted too easily.

“I can sit with a kid for an hour and work on yoga, but they get bored,” he said. “You need something that’s appealing and quick. This is immediate visual feedback. I’ve used it on
people as young as 3 years old and up to 103.”

Dr. Rosen uses it not only in his practice, but also at home with his children and relatives. Recently he went on a family trip to Cambodia and took an emWave along for his children.

“It’s an 18-hour flight,” he said. “We definitely used it with the takeoff and landing. On a few of the boat trips that we had there, it was really effective to carry it with us.”

**What the Science Shows:** A number of studies have found evidence that biofeedback devices can help reduce stress in hospital settings, though they have mostly been small and not always placebo-controlled. In a study at the Royal Free Hospital in London, researchers tested the effects of a computer biofeedback game on 40 patients with irritable bowel syndrome, a stress-related disorder. They found that it helped teach relaxation “rapidly and effectively,” and reduced some symptoms. Another small study, published in the journal Clinical Pediatrics in 2010, found that a biofeedback video game that focused on breathing techniques benefited children with cystic fibrosis.

**The Caveats:** Biofeedback devices aren’t cheap. The emWave2, for example, which can be ordered online, costs about $230.

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