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## Could TMS Therapy Help Your Depression?

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*Transcranial magnetic stimulation (TMS), a new treatment, shows promise in easing depression. It uses magnetic pulses to stimulate mood-boosting parts of your brain. Is TMS therapy right for you? Get the facts on this cutting-edge therapy...*

For many clinically depressed people, prescription antidepressant medications, talk therapy or a combination of both usually improve depression symptoms.

But some patients – about 10%, according to the Food and Drug Administration – need additional treatment.

For them, transcranial magnetic stimulation (TMS) therapy, a non-invasive, out-patient treatment, might be the ticket out of depression.

TMS uses focused magnetic pulses to stimulate specific areas of the brain to increase production of mood-boosting chemicals, says Todd Hutton, M.D., a psychiatrist in Pasadena, Calif.

Sound like “electroshock,” or electro-convulsive therapy (ECT)? In fact, both procedures stimulate the brain, but TMS is a less-drastic treatment, says Igor Galynker, M.D. Ph.D., director of the Family Center for Bipolar Disorder at Beth Israel Medical Center and professor of clinical psychiatry at Albert Einstein College of Medicine in New York City.

It doesn't require a hospital stay and has fewer side effects, he says.

TMS is also newer than ECT. Approved by the FDA in 2008, TMS is becoming more widely available.

But it's costly, and many insurance plans don't cover it.

Still, TMS is proving to be as effective as ECT against hard-to-treat depression, according to a 2011 research review by the federal Agency for Healthcare Research and Quality.

Read on to learn more about this depression treatment. **How does transcranial magnetic stimulation work?**

During TMS therapy, a magnetic coil sends short pulses to the brain's surface, explains Murali Rao, M.D., chairman of the department of Psychiatry and Behavioral Neurosciences at Loyola University's Stritch School of Medicine in Chicago.

TMS magnetic currents “stimulate underactive brain cells and, in turn, affect mood-regulatory circuits deeper in the brain,” he says.

### **What do patients experience during TMS?**

During treatments, patients recline in a comfortable padded chair, Dr. Rao says.

The magnetic coil is placed against the scalp.

TMS pulses are generally delivered at a rate of 10 per-second for 4 seconds, followed by a 20-second rest period, Dr. Hutton says.

“The pulses can be heard, so ear plugs are recommended to drown out the noise or prevent it from becoming irritating,” he says. **What happens during TMS treatment?**

During the first TMS procedure, a doctor determines where the stimulation should be delivered on the head and how strong the pulses should be. They may increase the pulsing until it causes an involuntary movement of your hand.

After the first treatment, the rest may be administered by a TMS-trained assistant under a doctor's supervision,” says Linda Carpenter, M.D., chief of the mood disorders program at Butler Hospital in Providence, R.I.

But a doctor remains available on the premises to counsel or check on the patient.

### **How long are treatments?**

Each lasts 35-40 minutes. A standard course of TMS therapy is five treatments a week for six weeks, Dr. Carpenter says.

After 30 treatments, most patients taper off with six more treatments over the next three weeks.

“Some patients get better before six weeks; others whose illness has been very resistant may need longer than 30 treatments,” she says. **Are there side effects?**

The most common is a sensation of “tapping” on the head at the spot where the magnetic energy pulses are being delivered. It’s caused by the activation of brain cells, Dr. Carpenter says.

“There’s nothing actually hitting the head, but patients often [say it feels like] a woodpecker pecking on their scalp in the same spot,” she explains.

Some patients also sense a vibration or twitching around their scalp, forehead or jaw during the procedure, but that goes away after the pulses stop, Dr. Carpenter says.

### **What else might patients feel?**

Patients may also experience scalp sensitivity where the magnetic pulses are delivered, but that seems to decrease over time, Dr. Carpenter says.

In the first few days following treatment, patients sometimes feel sore at the spot where the pulses were applied, she says.

That’s treatable with over-the-counter pain relievers, such as acetaminophen (Tylenol) or ibuprofen (Motrin), Dr. Carpenter says. “Eventually, patients report they don’t find the feeling uncomfortable anymore,” she says.

**How long do the effects of treatment last?**

That varies, depending on a patient's symptoms, health history and other factors, Dr. Carpenter says.

On average, effects "seem to last for about 4-6 weeks," depending on the patient's symptoms and level of depression, says Dr. Galynker.

A maintenance treatment or series of treatments is often required every 4-6 weeks after that, he says.

**What's the difference between transcranial magnetic stimulation and electro-convulsive therapy (ECT)?**

People often confuse TMS with ECT, but they're different, Dr. Hutton says.

"ECT treats depression by stimulating the whole brain with an electrically induced seizure," he explains. It's done in a hospital, because it requires anesthesia and usually causes short-term memory loss, Dr. Carpenter adds.

"When a person awakens from an ECT treatment, they're typically a little disoriented until the effects wear off, so they're monitored for a while in a recovery room," she says.

But TMS treatment doesn't lead to a seizure, so patients don't need to be hospitalized and don't require anesthesia; they also don't experience disorientation or memory loss, Dr. Carpenter says.

"Patients can drive themselves to [and] from treatments," she says.

**Can it be used with antidepressants?**

Because it's not a medication, TMS doesn't enter the bloodstream.

That means patients can continue antidepressants during the therapy or afterward if their physician recommends it, according to University of Michigan Psychiatry in Ann Arbor.

It's also safe for pregnant or about-to-be pregnant women, or nursing women with postpartum depression, Dr. Rao says. **What does transcranial magnetic stimulation cost?**

The price varies according to the location and number of sessions. One session averages about \$300; a full course of treatment could cost \$9,000-\$11,000, according to the Elata Foundation, a nonprofit TMS research organization based in Carrboro, N.C.

Most health insurance plans currently don't cover TMS therapy for depression, but some provide partial reimbursement on a case-by-case basis, according to Johns Hopkins Medicine in Baltimore.

If you don't have insurance or your plan won't cover treatment, your doctor may offer financing options or extended payment plans.

**Finding TMS therapy near you**

Your doctor may know if TMS therapy is available in your area, or call your local hospital to find out if they offer it.

Neuronetics, the company that manufactures the FDA-approved TMS device, offers a searchable doctor directory [on its website](#).

*For more information and expert advice, visit Lifescrpt's [Depression Health Center](#). **Could You Be Depressed?***

Like Picasso, everyone goes through a "blue period" from time to time. But if you're depressed, you are experiencing more than just the occasional bad mood or terrible day. Depression affects 20 million people in any given year and is a serious enough disorder to compromise one's ability to function normally day to day. **Find out** if you're just blue or if you might be clinically depressed.

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