

**DISCOVERIES ARE LEADING TO AN EXPANDED LIST OF TREATMENTS FOR THOSE WITH OBSESSIVE-COMPULSIVE DISORDER, A SERIOUS ANXIETY DISORDER THAT CAN SIGNIFICANTLY HINDER A PERSON'S DAILY LIFE, WORK, AND RELATIONSHIPS. SOME OF THE LATEST RESEARCH, INCLUDING STUDIES OF MEDICATIONS AND BRAIN STIMULATION TECHNIQUES, AIMS TO HELP A LARGE NUMBER OF PEOPLE WHO ARE RESISTANT TO AVAILABLE TREATMENTS.**

### OBSESSIVE-COMPULSIVE DISORDER

The scrubbing continues. And continues. And continues. Your breakfast remains barely touched while you repeatedly detour to the sink to scour your hands, 15 times so far.

Some say you're quirky, but it's much more than that. Approximately 3.3 million American adults suffer from obsessive-compulsive disorder, or OCD, a serious and very real anxiety disorder that is characterized by irrational, recurring thoughts, such as an excessive concern with germs and dirt or a fixation on order. These obsessional thoughts may lead people with OCD to constantly repeat behaviors, like hand-washing or arranging objects symmetrically, to help ease their anxiety and keep the obsessive thoughts at bay. The process can sideline daily life activities, relationships, and careers, but does little to stop the obsessions from resurfacing.

Scientists, however, are now finding better ways to break OCD's hold. Increasing research is pushing forward the development of new treatments, including a possible medication that may help mute the intrusive thoughts of people with OCD, as well as

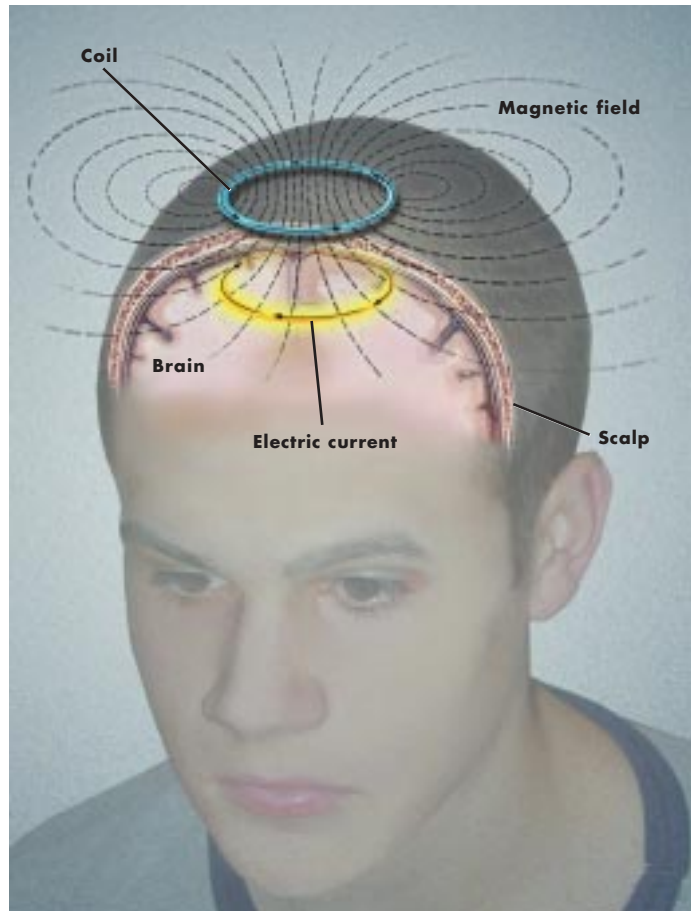


IMAGE BY LYDIA KIBIUK.

▲ **RESEARCHERS ARE LOOKING INTO BRAIN STIMULATION TECHNIQUES, INCLUDING TRANSCRANIAL MAGNETIC STIMULATION (TMS), AS POTENTIAL TREATMENTS FOR OCD. IN TMS, AN ELECTROMAGNETIC COIL HELD AGAINST A PATIENT'S HEAD SENDS OUT STRONG MAGNETIC PULSES. THE ELECTRIC CURRENT FORMED BY THESE PULSES ALTERS THE ACTIVITY OF THE BRAIN'S NERVE CELLS. TMS IS BEING TESTED CURRENTLY ON OCD PATIENTS IN A CLINICAL TRIAL AND ONE DAY MAY HELP MANY MORE.**

stimulation techniques that alter brain activity to relieve symptoms. The advances are leading to:

- A clearer understanding of the mechanisms that underlie fear and OCD.
- Additional treatment options that target diverse brain mechanisms to aid those

with hard-to-treat forms of OCD.

One component of OCD treatment centers on behavioral techniques that help people regain control over their irrational behavior. People who continuously wash their hands in fear of germs may be urged to touch an object thought to

**STEPHEN F. HEINEMANN, PhD**

President  
The Salk Institute

**DAVID VAN ESSEN, PhD**

President-Elect  
Washington University  
School of Medicine

**CAROL A. BARNES, PhD**

Past President  
University of Arizona

**FOR MORE INFORMATION**

Please contact the public  
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be dirty and then encouraged to refuse to wash for several hours. The therapy, when properly applied, is highly effective, but the number of skilled practitioners is limited.

Drugs used for depression that alter certain brain chemicals and decrease anxiety also can successfully help treat OCD. Drugs typically used to treat OCD act on cells in the brain that affect levels of the brain chemical serotonin, which different parts of the brain linked to OCD use to communicate with each other. Serotonin is known to affect mood and anxiety levels. But the medications don't aid everyone.

Scientists continue to pursue research to find treatment strategies for those who don't respond to these medications. These strategies include new medications, combinations of currently used drugs with those used to treat other men-

tal disorders, and behavior therapy paired with medication.

Recently, researchers have identified new techniques that could increase the number of treatments for OCD and possibly help a wider range of people. Included is the compound D-cycloserine. First, animal research helped scientists determine that D-cycloserine boosts activity of a brain cell component termed the NMDA receptor, which is implicated in general learning. The compound also enhanced the ability of rats to overcome their fears. When combined in low doses with the kind of behavioral therapy described above, it helps people conquer their fears.

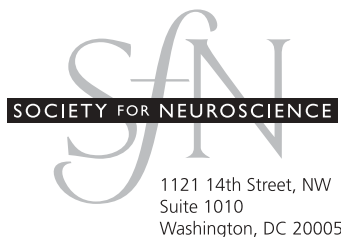
Other strategies, like deep brain stimulation, also may translate soon into new treatments for OCD. This technique, comprised of a brain implant that delivers electrical

pulses to alter brain activity, already has helped many patients with tremors and the movement disorder Parkinson's disease achieve greater movement control. Small studies recently found evidence that deep brain stimulation in certain brain areas also can relieve symptoms of OCD. Larger studies of the technique are in progress.

Another stimulation technique, transcranial magnetic stimulation, also holds promise. Instead of a brain implant, the technique relies on an electromagnetic coil held against the patient's scalp that emits powerful magnetic pulses to alter brain activity. Following positive results in a small study, researchers have begun a larger study that will include 50 people with OCD.

As advances continue, more people plagued by OCD soon may be able to put down the hand soap and regain control of their lives.

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