

# Smart Brain Test Helps Stressed Vets

A new way to evaluate soldiers suffering from PTSD, depression, or other mental illnesses promises more effective solutions.

BY CHRIS GONSALVES

**D**OCTORS ARE TESTING AN innovative technology to ease the growing epidemic of depression and post-traumatic stress disorder among the nation's military veterans and recently returned warriors.

Doctors at Walter Reed in Washington and nearby Fort Belvoir Community Hospital in Virginia will employ a brain-scanning protocol developed by CNS Response Inc. of Aliso Viejo, Calif., to study 2,000 volunteer military patients suffering from depression, PTSD, and traumatic brain injury.

The program, set to run through the end of this year, is already due to be expanded to other sites, including the Veterans Administration Healthcare System in Boston.

"This could revolutionize prescribing practice in terms of helping people get the right treatment sooner," Dr. John Bradley, VA Boston Healthcare System's chief of psychiatry and former head of the psychiatry department at Walter Reed tells Newsmax. "Psychiatry doesn't really have a predictive model for which disorders will respond best to which

medications. This technology provides an additional data source for treatment options to consider and hopefully will allow us to pick the right medication first without the usual trial and error. We're always looking for the most effective treatment. This test allows us to be a little bit smarter."

The test begins with a standard electroencephalograph, or EEG, a procedure that has been around in much the same form since the 1930s. Electrodes are

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— *George Carpenter, CNS Response CEO*

placed on the patient's head to measure spontaneous brain activity for about 20 to 30 minutes.



**MORE EFFICIENT EEG** A new system analyzes EEG scans and compares them to a database for the best treatment options.

The information is instantly uploaded to a CNS Response data center where 74 separate EEG variables can be computer analyzed and compared to the company's Psychiatric EEG Evaluation Registry (PEER), of more than 35,000 similar brain scans of patients being treated for depression, anxiety, and PTSD.

Thanks to advancements in data processing and real-time communications, the system can now be used to quickly determine the best course of treatment for depression and PTSD given the patient's individual brain activity profile. It's not unlike the way Amazon.com or Netflix computers make automated suggestions based on prior purchases.

It's also a far cry from the trial-and-error approach traditionally







**NATIONAL TRAGEDY** Veterans return with scars, both seen and unseen. From left: Army Reserve Sgt. Jared Myers, Army Lt. Col. Kathy Champion, and former soldier Jeff Hanks return with PTSD. Evan Mettie, an Iraq war veteran, suffered brain injuries from a bomb blast.

has a less than 30 percent chance of working, and most patients will drop out after two or three failures.”

The PEER system’s more analytical approach takes much of the guesswork out of the equation. Instead of a 30 percent chance of getting it right, mental health professionals using the CNS Response system can boost their success rate to close to 80 percent, Carpenter says.

While new to the military, the CNS Response service has been used in the treatment of civilians for several years. One of those patients, Brian Harvey, credits the system with saving his life after seven years and four failed attempts at treatment for bipolar disorder.

“I kept trying to find something that would work,” Harvey says of his treatment prior to using CNS Response. He’s since become an enthusiastic advocate for the service. “If

symptoms of a combat-related mental health condition, and roughly half said they had suffered a traumatic brain injury. More than 60 percent said they currently have depression — eight times the rate of the general U.S. population.

The symptoms of traumatic brain injury mimic PTSD with sleep problems, forgetfulness, and trouble focusing on tasks that can make assimilation and civilian employment difficult, says Dr. Judith Broder, founder of The Soldiers Project, a California-based free counseling service for military members.

**S**ome 18 discharged veterans kill themselves each day, according to the U.S. Department of Veterans Affairs. That’s 540 lost lives per month, the equivalent of an entire Army battalion.

“We need to pay attention to the invisible wounds,” Broder says. “There’s also been an increase in domestic violence, in drug use, in car accidents, because veterans are suffering from PTSD and also traumatic brain injuries that interfere with day-to-day functioning.”

“Doctors have made great strides with physical medicine to save lives in war zones. Soldiers are coming back alive who wouldn’t have made it back before,” says Carpenter. “But we’ve not made the same kinds of progress in psychiatry. We now have to treat the invisible injuries.” □

**Brain Scan CNS Response Inc.**

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**SCANNING FOR TROUBLE** Through shading and colorizing, brain scans reveal possible abnormalities, which can pinpoint problem areas and lead to better diagnosis and treatment.

employed to treat such mental health issues, according to CNS Response CEO George Carpenter.

“The tragedy of psychiatry is that we have 130 different drugs, and we don’t know which ones work in which brains,” Carpenter tells Newsmax. “We know you’re depressed, but what medication do we choose? Most doctors start out with a medication that

I can help just one person avoid the battle I went through to get the right medication, it’s worth it.”

The work at CNS Response, which brands itself a “clinical decision support company,” comes at a time of near crisis for America’s returning veterans. A *Navy Times* survey in 2012 found nearly 80 percent of Iran and Afghanistan vets reported having