

Brain pacemaker? Deep stimulation therapy shown shows promise in relieving severe depression

By [mapping out a depressed patient's brain circuitry](#), researchers were able to identify biological markers that told them [depression] symptoms were coming, and implant a device to deliver targeted electrical stimulation and provide immediate relief in something like a cranial call and response.

The implant the UCSF team used, called a NeuroPace device, was granted an investigational exemption by the Food and Drug Administration, but it hasn't been cleared for more general use in treating depression. And the team had to engineer a completely new infrastructure to make the device work for its study, neurosurgeon and senior study author [Edward Chang](#) said during a news conference.

Chang first identified the possibility of using brain stimulation for depression years ago, as he was treating epileptic patients with electrical stimulation and noticed a difference in their moods, anxiety, and depressive symptoms.

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"The growing recognition is that there's not, like, one depression area or one mood area in the brain," said Chang, who's been a close collaborator with psychiatry researchers at UCSF. "And unfortunately, that's the way that we've approached this in the previous trials with traditional deep brain stimulation."

[This is an excerpt. Read the original post here.](#)