‘Cutting nickel-size holes in your skull and plunging in metal-tipped electrodes’: Could deep brain stimulation cure drug addiction?

After nearly two decades of hardcore drug addiction — after overdoses and rehabs and relapses, homelessness and dead friends and ruined lives — Gerod Buckhalter had one choice left, and he knew it.

He could go on the same way and die young in someone’s home or a parking lot, another casualty in a drug epidemic that has claimed nearly 850,000 people like him.

Or he could let a surgeon cut two nickel-size holes in his skull and plunge metal-tipped electrodes into his brain.

More than 600 days after he underwent the experimental surgery, Buckhalter has not touched drugs again — an outcome so outlandishly successful that neither he nor his doctors dared hope it could happen. He is the only person in the United States to ever have substance use disorder relieved by deep brain stimulation.

The device, known as a deep brain stimulator, also is recording the electrical activity in Buckhalter’s brain — another innovation that researchers hope will help locate a biomarker for addiction and allow earlier intervention with other people.

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