

Traumatic brain injuries can damage short-term memory. A potential solution? It's shocking

For people who've had a traumatic brain injury (TBI), though, recalling recent events or conversations can be a major struggle.

"We have patients whose family cannot leave them alone at home because they will turn on the stove and forget to turn it off," says [Dr. Ramon Diaz-Arrastia](#), who directs the Traumatic Brain Injury Clinical Research Center at the University of Pennsylvania.

So Arrastia and a team of scientists have been testing a potential treatment. It involves delivering a pulse of electricity to the brain at just the right time.

And it worked in a study of eight people with moderate or severe TBIs, the team [reports](#) in the journal *Brain Stimulation*. A precisely timed pulse to a brain area just behind the ear improved recall by about 20 percent and reduced the person's memory deficit by about half.

Follow the latest news and policy debates on sustainable agriculture, biomedicine, and other 'disruptive' innovations. Subscribe to our newsletter.

[SIGN UP](#)

If the results pan out in a larger study, the approach might improve the lives of many young people who survive a serious TBI, says Diaz-Arrastia, an author of the study and a professor of neurology at Penn.

...

But the treatment is not for the timid. It requires patients to have electrodes surgically implanted in their brain. And scientists are still refining the system that delivers the electrical pulses.

[This is an excerpt. Read the full article here](#)