Physicians, Scientists to Discuss Brain Stimulation Technique, Dangers of DIY

UF Health

An international group of will learn about a novel brain stimulation technique and the potential dangers of do-it-yourself treatment from a University of Florida Health researcher as part of an inaugural conference on neuromodulation Nov. 22-23 in New York City.

The conference will bring together top experts in the field for short, 20-minute presentations on several different noninvasive brain stimulation techniques, in addition to a two-hour practical course led by UF Health researcher Adam Woods, Ph.D.

“We want to give scientists and clinicians a practical introduction to this technique,” said Woods, an assistant professor of aging and geriatric research, neuroscience and psychology in the UF Institute on Aging and a member of its Cognitive Aging and Memory Clinical Translational Research Program. His introduction will include the use of transcranial direct current stimulation, or tDCS, as a research tool and a clinical tool, and will dispel some myths about its use.

tDCS uses a 9-volt current source, such as a battery, to connect electrodes to a person’s head in a specific way to create subtle effects in the brain. It has been used to treat depression, anxiety, post-traumatic stress disorder and other mental health disorders. Scientists like Woods also are researching ways to slow the brain’s aging process.

“We know our thinking and memory skills are going to decline as we age. This approach might be a way to slow or counteract that process,” he said. The technique works by subtly altering how neurons in the brain are firing. And the procedure is less invasive than some other brain stimulation techniques.

However, less invasive does not mean easy to implement for the lay person. Woods emphasized that safety precautions are critical when using this technique. He hopes to inform scientists and physicians about a growing danger — people who are attempting to replicate the technique at home on themselves or on others using homemade brain stimulation devices. People who try this without a reliable power source such as the ones found in a clinical or research setting risk a potential current surge, which could have devastating effects on a person’s health.

“Like many research and clinical techniques, this is not something people should be doing at home with homemade devices,” Woods said. “As a scientist, I find this trend frightening.”

To learn more about the conference, please visit http://nycneuromodulation.com/

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