

# DBS study could boost Medtronic's neuromodulation business

Mass Device

By [Thomas Lee](#) [1]

The conclusions from a major study on deep-brain stimulation published in the *New England Journal of Medicine* today seemed rather anti-climatic, at least on the surface.

There was no real difference between implanting a DBS device in the globus pallidus interna and subthalamic nucleus regions of the brains in patients suffering from Parkinsons disease. Each worked equally as well.

But for Medtronic Inc. (NYSE:MDT), which funded the study, the results are significant because it gives doctors more flexibility (and clinical comfort) in using its Activa PC and RC devices, the first and only DBS devices approved by the Food & Drug Administration to treat movement disorders in the United States.

And greater flexibility means a greater pool of potential patients.

Medtronics neurostimulation sales in fiscal 2010 rose 9 percent to \$1.6 billion, driven largely by Activa sales.

Doctors tend to target the SN region for DBS therapy, even though theres no evidence that that location produces better results than the GPI. Researchers randomly implanted Medtronic devices in either region in 300 patients across the country and compared the results.

(The U.S. Dept. of Veteran Affairs, the [National Institute of Neurological Disorders and Stroke](#) [2], and Medtronic paid for the study. The study insisted Medtronic had no role in designing the study or interpreting the results, although several of the authors have received grants, lecturing and consulting fees from the company.)

After 26 months, patients in both groups reported significant improvement in motor control, the primary objective of the study, as measured by the [Unified Parkinsons Disease Rating Scale](#) [3]. The scale measures motor control in areas such as speech, facial expression and hand tremors on a zero-to-four-point scale, with zero denoting no symptoms or normal function and four indicating severe symptoms or interference in function.

Overall, the GPI group reported a 11.8-point reduction; SN patients boasted a 10.7 point decline.

"Improvement in motor function as measured by UPDRS-III motor scores did not

## **DBS study could boost Medtronic's neuromodulation business**

Published on Medical Design Technology (<http://www.mdtmag.com>)

---

differ significantly according to the target of deep-brain stimulation, and we cannot conclude that one target is superior to the other on the basis of this measure," the authors wrote. "Both sites are feasible targets.

"The absence of a difference in motor outcomes in the two study groups should serve to reassure clinicians that the choice of target need not focus solely on improvement in motor function," they continued. "The selection of the target can reasonably take into consideration the constellation of motor and non-motor symptoms that define quality of life for patients with Parkinsons disease."

Medtronic officials quickly praised the study.

"Data collected from this study demonstrate not only the long-term efficacy of Medtronic DBS Therapy for Parkinsons disease but also the positive impact the therapy has on patients," said Tom Tefft, president of Medtronic's neuromodulation business, in prepared remarks.

[SOURCE](#) [4]

**Source URL (retrieved on 10/01/2014 - 11:47pm):**

[http://www.mdtmag.com/news/2010/06/dbs-study-could-boost-medtronics-neuromodulation-business?qt-recent\\_content=0](http://www.mdtmag.com/news/2010/06/dbs-study-could-boost-medtronics-neuromodulation-business?qt-recent_content=0)

### **Links:**

[1] <http://www.medcitynews.com/author/tlee/>

[2] <http://www.ninds.nih.gov/>

[3] <http://www.mdvu.org/library/ratingscales/pd/>

[4] <http://www.massdevice.com/news/dbs-study-could-boost-medtronics-neuromodulation-business>