

*We view your home physician or neurologist as part of our extended team, and maintain close contact with them throughout your evaluation and treatment process.*

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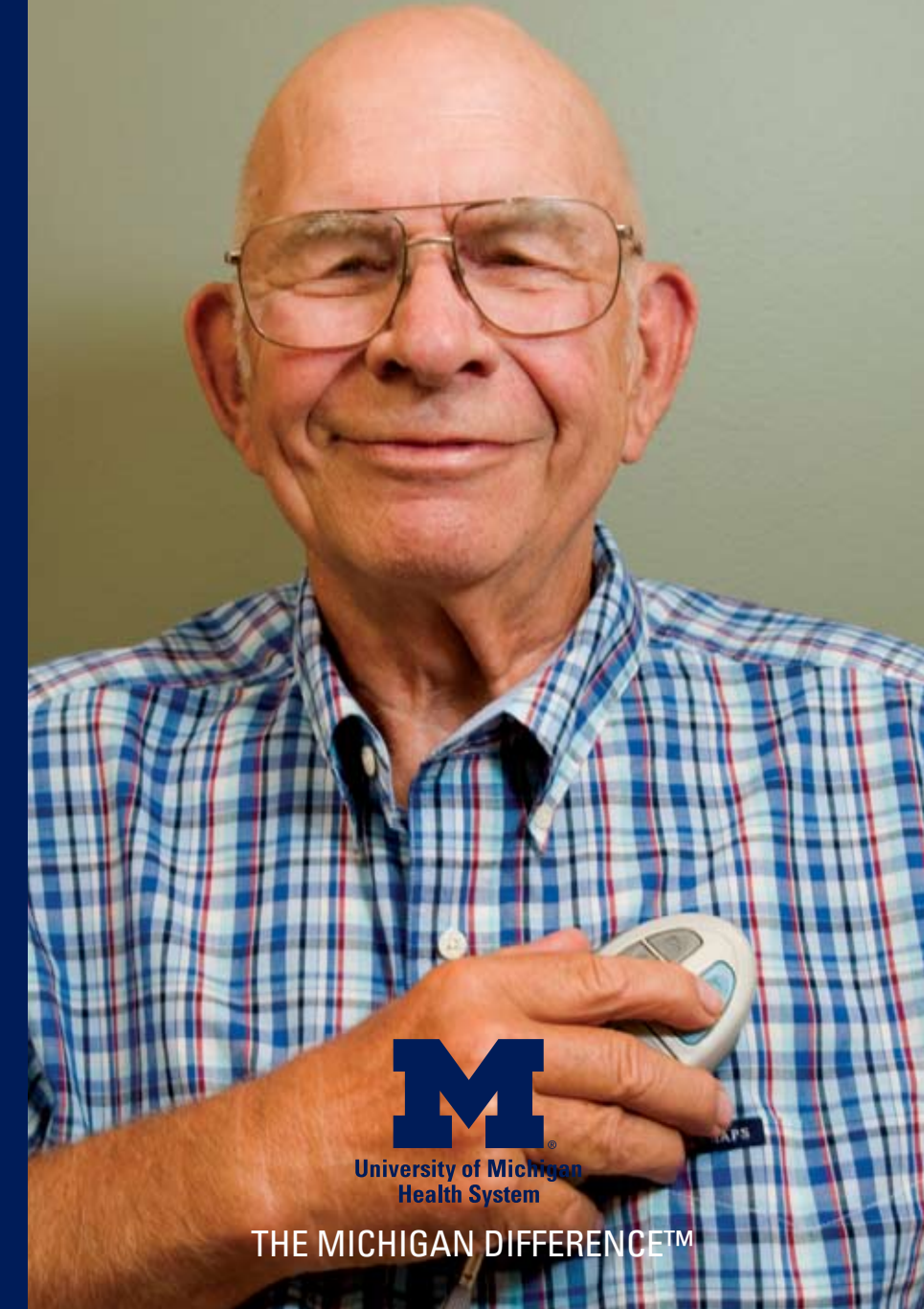
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*“Dr. Chou and Dr. Patil returned my life to me. My tremors are virtually gone. I can drive again, drink a cup of coffee, sign my name and even play a little golf. The U-M doctors and specialists worked together and gave me back my life.”*

George

# DEEP BRAIN STIMULATION



University of Michigan  
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THE MICHIGAN DIFFERENCE™

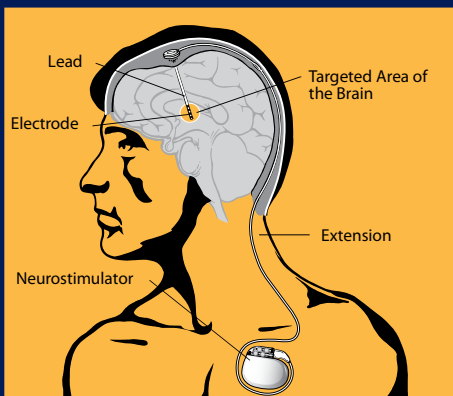
# ANSWERS TO FREQUENTLY ASKED QUESTIONS ABOUT DEEP BRAIN STIMULATION

## What is Deep Brain Stimulation (DBS)?

Developed in the 1980s, the DBS system is an implanted device that applies low voltage electrical stimulation to the brain. It is an established surgical treatment for Parkinson's Disease, tremor disorders and some forms of dystonia. It is not a cure for disease, but it can be an effective therapy to control disabling and medically untreatable symptoms.

## How does DBS work?

A pacemaker-like device (generator) is implanted under the skin and connected through thin wires to electrodes implanted in the brain. The generator delivers electrical impulses to specific areas in the brain.



Parts of the brain stimulation system implanted inside your body.

image provided by Medtronic Inc.

## Who are the best candidates for DBS?

- Those with Parkinson's Disease who still respond to levodopa, but have poorly controlled symptoms.
- Those with tremors who do not respond to medication.
- Those with torticollis (wry neck) and other forms of dystonia who do not respond to medication.

**DBS may not be suitable for those with significant medical problems that increase the risk of surgery.**

## How do I know if DBS is right for me?

Because some individuals benefit more from DBS than others, we carefully evaluate the potential benefits and risks for each individual. At the University of Michigan, all patients undergo a rigorous evaluation process by our team of specialists, including a movement disorders neurologist, neuropsychologist, speech pathologist and neurosurgeon. Individuals also undergo a unique high-resolution MRI scan that allows the neurosurgeon to see finely detailed images of the brain. After this comprehensive evaluation, decisions regarding surgery are made at a joint team conference, based on each expert's opinion.

## How is DBS implanted?

DBS is implanted while the patient is awake in the operating room using sophisticated imaging and electrophysiological techniques. Our team of experts performs tests together in the operating room to make sure that you have the best possible result.

Surgery is done in two stages, a few weeks apart. The first stage, lead placement, requires an overnight stay. The second stage, neurostimulator placement, typically allows discharge the same day of surgery.



## What happens after surgery?

The DBS will be turned on about two weeks after the second stage of surgery. To get the best results, most people require several DBS adjustments for the first six months. DBS adjustments are non-invasive and use a hand-held programmer to change the settings. The programming wand is held over the generator to send the changes to the DBS system.



The U-M Movement Disorders Surgery Program utilizes a multidisciplinary approach to the evaluation and treatment of patients being considered for DBS. We have "hand picked" a team of nationally recognized experts to lead our Movement Disorders Surgery Program. All bring years of research and clinical experience in the field of movement disorders. This group of professionals works very closely together and uses the very latest in imaging and localization equipment to give you the best possible outcome from DBS surgery.

You can expect our specialized team of experts to provide the most comprehensive DBS evaluation and care in Michigan.

Our multidisciplinary team is made up of:

- Neurologists
- Neurosurgeons
- Neuropsychologists
- Neuroscience Nurses
- Physical and Occupational Therapists
- Radiologists
- Social Workers
- Speech-Language Pathologists



*For more information or to make an appointment for a DBS consultation, please call us at **734-936-7010** or visit our Web site [www.med.umich.edu/md](http://www.med.umich.edu/md).*