



**DEEP BRAIN STIMULATION (DBS) FOR PARKINSON'S DISEASE:
EXPECTATIONS AND FACT SHEET**

DBS in PD: What it can and can't do for you

- DBS does not cure Parkinson disease
- DBS improves tremor, slowness (bradykinesia), stiffness (rigidity), dyskinesias and dystonia in most cases, but may not completely eliminate them.
- DBS helps smooth out on and off times, but does not completely eliminate off time.
- After DBS surgery, programming visits occur frequently over the first six months. After the first 6 months, they are typically twice per year.
- DBS decreases the need for Parkinson's medications in many patients, but not all.

(adapted from Okun, MS & Foote, KD 2004)

DBS in PD: Frequently Asked Questions

What is the main goal of DBS surgery for Parkinson Disease?

- The main goal is to decrease the fluctuations between on and off states, to increase the amount of good quality on time without dyskinesias, and to reduce tremor.

Will surgery help my cognitive and mood problems?

- Cognitive and psychiatric impairments rarely improve, and may worsen with DBS.

Will surgery help me get my voice back?

- DBS rarely helps slurred speech or decreased vocal volume in PD.

Will my Parkinson symptoms be fixed after the first programming session?

- No. It takes 3 to 12 months to optimize DBS settings. It requires this much time for the brain to adapt to stimulation and for your medications to be altered.

Does surgery stop the progression of my disease?

- There is no evidence that DBS surgery stops the progression of Parkinson disease, though research is underway to test that question.

What are the potential complications of DBS therapy?

- For each side of the brain operated on, there is a ~1-3% chance of brain bleeding, stroke or infection. Some patients experience side effects from stimulation itself. In general, side effects caused by stimulation are reversed when the stimulator is turned off.

How long does the DBS battery last?

- The DBS battery (called an implantable pulse generator or IPG) has to be replaced every 2-4 years on average, depending on how high your settings are. Replacement of the IPG requires a same-day surgery that does not involve the electrodes in the brain.

DBS surgery

The DBS surgery occurs in two stages; each involves a 1-2 day stay in the hospital for recovery.

Stage 1: The DBS electrodes are placed in the brain. This surgery is usually done with you awake (with local anesthesia so there is no pain). Being awake allows for mapping of the brain and testing of the DBS system for optimal placement of the DBS electrodes.

Stage 2: In the second stage, the DBS battery (an implantable pulse generator or IPG) is placed in your chest similar to a cardiac pacemaker, and connected to the DBS electrodes. This procedure is done with you asleep.

DBS programming

Three to five weeks after your DBS surgery, you will meet with Lisa Townsend, Alice Flaherty or Todd Herrington for DBS programming. **At the first programming session, you need to be in an OFF state – you should stop taking your Parkinson’s medications 8-12 hours before the appointment time. This first session is about one-hour long.**

You will also need 4-5 more adjustment appointments at 2-3 week intervals after your initial programming. You will not need to be off your medications for all of these appointments; we will determine whether you should take your medications before each appointment.

What’s next?

During your DBS evaluation you will:

- Meet with the DBS Neurologists, Dr. Alice Flaherty and/or Dr. Todd Herrington (Wang 8).
- Meet with the DBS Neurosurgeon, Dr. Emad Eskandar (White 502)
- Meet with the DBS Nurse Practitioner, Lisa Townsend, to discuss the surgical and programming process and to answer any questions you have about the evaluation or procedure.
- Undergo neuropsychological testing.
- Have an MRI of the brain.

We are here to answer all of your questions and to guide you through this decision. Feel free to email Todd Herrington (therrington@partners.org) or Lisa Townsend (lmtownsend@partners.org) at any time.

Also, this is a good website to refer to regarding the surgery and the programming process:

<http://www.parkinson.org/parkinson-s-disease/treatment/surgical-treatment-options/deep-brain-stimulation>

Sincerely,

Alice Flaherty, MD, PhD
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Lisa Townsend, NP