



DBS THERAPY

# PREPARING FOR DBS THERAPY

Expect Progress. Reclaim Control.



## CHOOSING DEEP BRAIN STIMULATION (DBS) THERAPY

Now that you've decided DBS therapy is for you, it's normal to feel somewhat nervous or anxious as you prepare for surgery. Here are some steps that can help you prepare for your procedure.

Discuss your procedure with a caregiver — your spouse or close relative or friend. Consider asking your caregiver to accompany you to your doctor appointments to help you process information.

Keep your caregiver informed as you prepare for your procedure. Ask them to accompany you to the surgery, and tell them what support you'll need before, during and after.

Your doctor may also recommend that you talk with others who have had, or are considering, DBS therapy.

# PREPARING FOR DBS SURGERY

**Before you receive final approval to undergo DBS surgery, you will go through evaluations to determine whether you're a good candidate.**

This will most likely include an evaluation by a neurologist or movement disorder specialist to determine whether your symptoms will respond to DBS. It may also include an evaluation by a psychologist or psychiatrist. If you and your healthcare team decide you are indeed a good candidate for DBS, you'll be scheduled for surgery. You will most likely have questions and concerns about the therapy and procedure. Your doctor will be able to answer your questions and provide additional resources.

## **Questions to consider before the procedure:**

- How many days will I be in the hospital?
- What pre-op visits need to be scheduled?
- How long will the surgery take?
- What should my caregiver be prepared for?
- Will I be awake or asleep during surgery?
- When will the device be activated after the surgery?

## **As you prepare for your procedure, your doctor or staff may:**

- Advise you and your caregiver to write down the center's address, phone numbers and parking instructions. The surgery location may be different from where you were evaluated. Look it up on a map and consider making a rehearsal trip.
- Explain what medication you can take and what you need to stop taking.
- Suggest lodging near the hospital. If traveling from out of town, plan to arrive a day early.

## **A few days before your procedure, you should pack a bag for the hospital. It should include:**

- At least a week's supply of all your medications in their original, labeled bottles, with a list of medication names, dosages and times taken.
- Names and phone numbers of people to contact in case of emergency.
- Personal items such as photos or reading materials.

## **Tell your doctor about:**

- Bad reactions you or your family members have ever experienced with any anesthesia.
- Allergies you have to medications, food or other substances.
- Medications you are using, including prescription and nonprescription medicines, herbs and supplements.

**TALK TO YOUR DOCTOR FOR MORE INFORMATION  
ON WHAT TO DO BEFORE THE PROCEDURE.**

There is no cure for Parkinson's disease (PD) and essential tremor (ET), but there are options available to treat symptoms. The first-line therapy is medication. Surgical treatments are also available. It's important to discuss with your doctor what's right for you along with the risks and side effects of each option, such as motor fluctuations or permanent neurological impairment.

As with any surgery or therapy, DBS has risks and complications. Loss of coordination is a potential side effect of DBS therapy. Patients should exercise reasonable caution when participating in activities requiring coordination, including those that were done before receiving therapy (for example, swimming). Patients should also exercise reasonable caution when bathing.

New onset or worsening depression, which may be temporary or permanent, is a risk that has been reported with DBS therapy. Suicidal ideation, suicide attempts and suicide are events that have also been reported. Most side effects of DBS surgery are temporary and correct themselves over time. Some people may experience lasting, stroke-like symptoms, such as weakness, numbness, problems with vision or slurred speech. In the event that the side effects are intolerable or you are not satisfied with the therapy, the DBS system can be turned off or surgically removed.

Risks of brain surgery include serious complications such as coma, bleeding inside the brain, paralysis, seizures and infection. Some of these may be fatal.

## SURGERY DAY<sup>1</sup>

### IMAGING

The day of your surgery or the day before, your doctor will have you undergo either a head magnetic resonance imaging (MRI) or computerized tomography (CT) scan. These images help the neurosurgeon identify the exact location within your brain to place the leads. The surgeon will also place a frame (called a halo) around your head to give a stable platform for accurately placing the lead.

### LEAD PLACEMENT<sup>1</sup>

After the images are complete, you'll be taken into surgery for lead placement. In some centers, you will be asleep for most of this procedure. In other centers, you may be semi-awake during part of the procedure. Awake time can help the neurosurgeon determine whether the leads are in the right place to treat your symptoms. You will be given local anesthesia to ease any pain, as well as medication to help you relax.

### STIMULATOR DEVICE PLACEMENT

Your doctor will tell you before the surgery when the stimulator will be implanted. The device may be implanted at the same time as the lead placement or a few days or weeks later. The stimulator is usually placed in the chest, much like a pacemaker. You will be under general anesthesia during this part of the procedure. Following the surgery, you will be sent to a recovery area. Then you will be transferred to a care unit, where you will begin your recovery process.



# RECOVERING FROM YOUR SURGERY

## RESTING AND RECOVERY

Recovery is a gradual process. Allow time to rest and heal. At first you may experience some discomfort in the incision areas, or where the leads and extensions were placed. Follow your doctor's instructions regarding caring for those areas, as well as the use of pain medications, if needed. Over time your energy and activity levels will increase.

## TURNING ON YOUR DEVICE

The time from surgery until your system is turned on could range from a few days to several weeks, depending on what your doctor thinks is best for you. During your initial programming session, a clinician will turn on your device and program its settings wirelessly. You will receive a User's Guide for your controller. Make sure you keep it in a place where you can easily find it.

The St. Jude Medical™ Patient Controller app from Abbott is available for download on certain personal Apple® iOS® mobile digital devices. If you own a compatible personal Apple® mobile digital device, it can be used in place

of the Abbott-provided Apple® iPod touch® mobile digital device as your Patient Controller. To find out whether your personal Apple mobile digital device is compatible with Abbott's St. Jude Medical Patient Controller app, visit <http://www.NMmobiledevicesync.com/dbs>.

## ADJUSTING YOUR DBS SYSTEM

You and the clinician will work together to program your DBS system to provide the most beneficial therapy and develop the right customized combination of stimulation and medication. Optimizing the stimulation settings may require multiple adjustments, so don't get discouraged if you don't experience immediate results. Discuss expectations, questions and concerns about your DBS system with your doctor.



# LIVING WITH YOUR DBS SYSTEM

In the weeks and months following your DBS surgery, you'll become familiar with your DBS system. Individual results vary, but over the course of the next several months, you should gain more control over your symptoms. With an increase in activity, and a reduction in noticeable symptoms, many people feel more confident and experience increased freedom to live the lives they want.

Remember to be your own advocate; you know your body and symptoms the best. Inform your doctors if things don't feel right, as you may need a programming adjustment. As you learn to live with your DBS system, don't hesitate to communicate your needs and concerns with your doctor.







95.5%

OF USERS WITH  
PARKINSON'S DISEASE  
RECOMMEND ABBOTT  
DBS TO OTHERS<sup>2</sup>

"It really has given me my life back."

**CHARLENE,**  
USER OF THE ABBOTT  
INFINITY™ DBS SYSTEM



## WHAT CAREGIVERS NEED TO KNOW

If you are a caregiver for a family member or friend with Parkinson's disease, essential tremor or dystonia, it is important for you to get your questions answered and to have realistic expectations for how your life and role may change after the patient receives DBS. The following are some questions to consider discussing with the doctor. You may want to contact additional resources for support, such as online forums or caregiver support groups.

### **Questions for Caregivers to Consider:**

- What can I do before the DBS procedure to make sure we know what to expect from DBS therapy?
- What help will I need to provide the patient immediately following the surgery and over the next weeks and months?
- Will the patient be able to work or drive after surgery?



# LEARN MORE

## ABOUT THE ABBOTT INFINITY™ DBS SYSTEM

### AT ABBOTTDBS.COM

1. Mayo Clinic Staff. Deep brain stimulation. 2018. Accessed May 28, 2020. <http://www.mayoclinic.org/tests-procedures/deep-brain-stimulation/details/how-you-prepare/ppc-20156714>.
2. Abbott. Data on File. Parkinson's Disease Final Report C-04-01. 2012. n = 135.

#### Abbott

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#### Rx Only

##### Brief Summary:

Prior to using these devices, please review the User's Guide for a complete listing of indications, contraindications, warnings, precautions, potential adverse events, and directions for use. The system is intended to be used with leads and associated extensions that are compatible with the system.

**Indications for Use:** Bilateral stimulation of the subthalamic nucleus (STN) or the internal globus pallidus (GPI) as an adjunctive therapy to reduce some of the symptoms of advanced levodopa-responsive Parkinson's disease that are not adequately controlled by medications, and unilateral or bilateral stimulation of the ventral intermediate nucleus (VIM) of the thalamus for the suppression of disabling upper extremity tremor in adult essential tremor patients whose tremor is not adequately controlled by medications and where the tremor constitutes a significant functional disability.

**Contraindications:** Patients who are unable to operate the system or for whom test stimulation is unsuccessful. Diathermy, electroshock therapy, and transcranial magnetic stimulation (TMS) are contraindicated for patients with a deep brain stimulation system.

**Warnings/Precautions:** Return of symptoms due to abrupt cessation of stimulation (rebound effect), excessive or low frequency stimulation, risk of depression and suicide, implanted cardiac systems or other active implantable devices, magnetic resonance imaging (MRI), electromagnetic interference (EMI), proximity to electrosurgery devices and high-output ultrasonics and lithotripsy, ultrasonic scanning equipment, external defibrillators, and therapeutic radiation, therapeutic magnets, radiofrequency sources, explosive or flammable gases, theft detectors and metal screening devices, case damage, activities requiring excessive twisting or stretching, operation of machinery and equipment, and pregnancy. Loss of coordination is a possible side effect of DBS Therapy, exercise caution when doing activities requiring coordination (for example, swimming), and exercise caution when bathing. Patients who are poor surgical risks, with multiple illnesses, or with active general infections should not be implanted.

**Adverse Effects:** Loss of therapeutic benefit or decreased therapeutic response, painful stimulation, persistent pain around the implanted parts (e.g. along the extension path in the neck), worsening of motor impairment, paresis, dystonia, sensory disturbance or impairment, speech or language impairment, and cognitive impairment. Surgical risks include intracranial hemorrhage, stroke, paralysis, and death. Other complications may include seizures and infection. User's Guide must be reviewed for detailed disclosure.

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