



# Neuromodulation: Deep Brain Stimulation

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# What is Deep Brain Stimulation (DBS)?

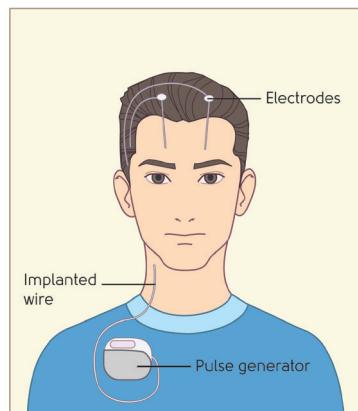
- DBS is a new brain stimulation procedure. It is approved by the U.S. Food and Drug Administration for Obsessive Compulsive Disorder (OCD) that is chronic and resistant to treatment.
- A pulse generator similar to a heart pacemaker is implanted in your chest, under your skin. This pulse generator sends an electric current into the brain.
- Electrodes are implanted in your brain and activate regions thought to be associated with your OCD.

## What is DBS used for?

- DBS is an effective treatment for neurological disorders such as essential tremor and Parkinson's disease.
- DBS is also being studied as an alternative or added treatment for severe depression and OCD when you have not benefitted from standardized treatments including:
  - a. Antidepressant medications
  - b. Psychotherapy
  - c. Electroconvulsive Therapy (ECT)
- DBS does not necessarily replace your medications.

## What is it like to receive DBS?

1. You will need brain surgery to implant the electrodes on both sides of your brain.
2. You will need another surgery to implant the pulse generator in your chest under your skin.
  - a. The pulse generator is connected to the electrodes in your brain through wires under your skin.



3. Two to three weeks after the surgery:
  - a. Your doctor will activate the device at his office.
  - b. You will receive a level of stimulation suitable for your situation.  
This level depends on your side effects as well.
  - c. You will be given a magnetic device to turn off the pulse generator as needed.
  - d. You will be following up regularly with your doctor to make sure that the device is working properly.

## What are the risks of DBS?

- Like other procedures, there is a very low risk of death due to general anesthesia (1 in 10,000 patients).
- DBS may also have risks and side effects associated with the surgery and after the surgery.
- You can ask your doctor about the possibility of these risks.

## What are the benefits of DBS?

- DBS may improve your symptoms, but it will take several months before you start observing these improvements.

**Ask your doctor if you wish to know about ongoing research studies on DBS.**

**This educational material provides general information only.  
It does not constitute medical advice. Consult your health care provider to determine whether the information applies to you.**

