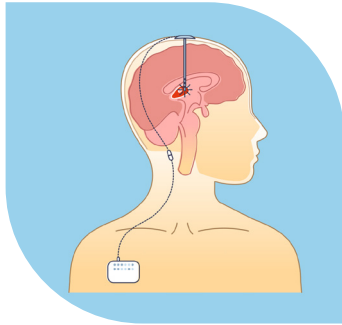


# Deep Brain Stimulation (DBS)

**Deep Brain Stimulation (DBS) is a procedure in which deep electrodes are implanted in a region of the brain called thalamus, to stimulate certain areas and control seizures.**



The candidates for DBS are people with refractory, also known as drug resistant epilepsy, and those who do not have one or two identifiable foci. Focal epilepsy patients are candidates for stimulation of the Anterior Nucleus of the Thalamus (ANT) and generalized epilepsy patients are candidates for stimulation of the Centro-medial Nucleus of the Thalamus (CMT).

During surgery, small holes are drilled on the skull to introduce electrodes that are placed into specific brain areas with the assistance of a frame or robot. These electrodes are connected to a stimulator, implanted in the chest (below the left clavicle), using an extension wire that runs under the skin of the head, neck, and chest. Sometimes it is necessary to schedule a second procedure to implant the battery-operated stimulator. After the electrode placement is confirmed with imaging tests like MRI or CT scan, the surgeon will complete the surgery by closing the scalp with stitches. Recovery is very quick, generally patients go home the next day, and light activity is recommended for a few weeks.

Follow up appointments with the specialists are scheduled to set the stimulation parameters and to ensure that the appropriate electric pulses to control the seizures are delivered. This battery may need to be replaced over time. If that is the case, the surgeon will schedule an outpatient procedure to replace it. DBS has been considered another safe and effective therapy and has been used for the treatment of multiple diseases in the nervous system like Parkinson's disease.

Risk of infection, bleeding, misplacement of the leads and pain in the area where the device was implanted have been related to the procedure. Side effects may include tingling sensation (pins and needles) in the face, arms and/or legs, loss of balance or headache.

Benefits and risks of this procedure should be discussed with the surgeon and healthcare professionals in the team.

Learn more at

**[ItsYourEpilepsy.com](https://www.ItsYourEpilepsy.com)**

# Frequently Asked Questions about Deep Brain Stimulation (DBS)

## **Q. Do you feel the stimulation?**

**A.** No, you don't.

## **Q. Will I be awake during surgery?**

**A.** The surgery can be done awake or asleep. This is a conversation to have with your surgeon to understand why it is necessary to do it awake or asleep.

## **Q. Does the surgery hurt?**

**A.** The incisions or cuts are very small and well tolerated.

## **Q. Do you have to recharge it?**

**A.** There are rechargeable and non-rechargeable devices.

## **Q. How long does the battery last? When do you have to swap the battery out?**

**A.** It depends on the level of use, and whether the device is rechargeable. Non-rechargeable devices last from 5 to 7 years while rechargeable, while rechargeable ones can last up to 15 years.

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