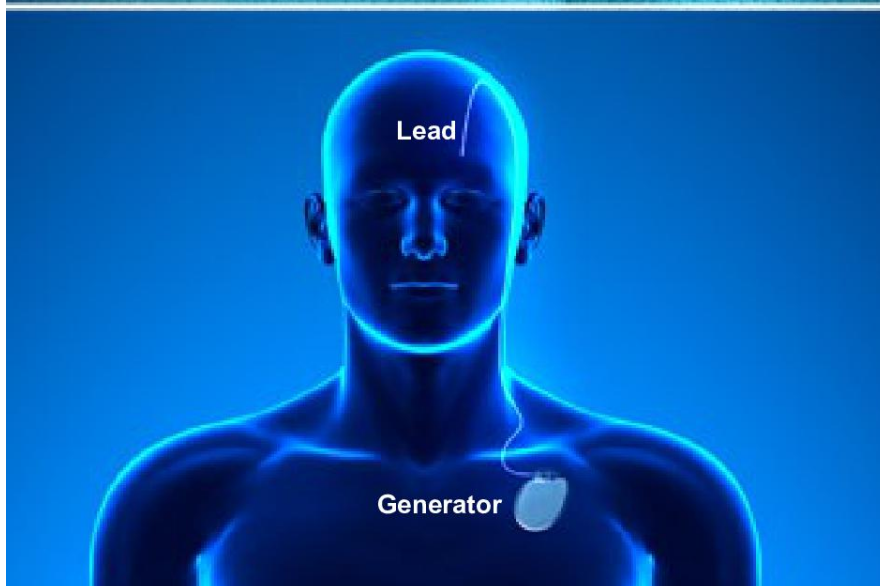
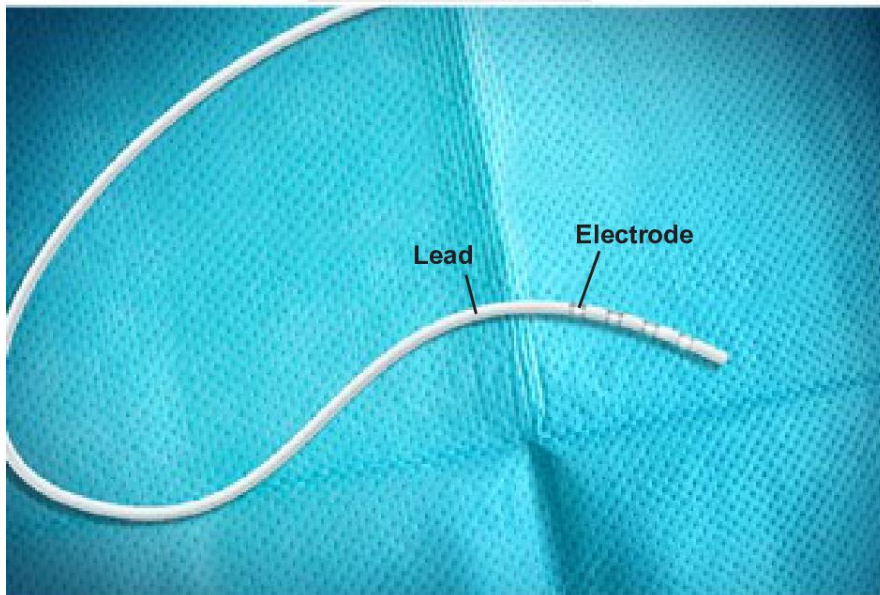




Deep Brain Stimulation (DBS), Frameless Method



Overview

This is a treatment for certain problems in your brain. It involves placing electrodes into your brain to control abnormal brain signals. DBS can help manage a wide range of conditions such as Parkinson's disease, epilepsy and Tourette syndrome.

Preparation

To begin, a device is secured to your head with tiny screws. The frameless device is lightweight and lets you move your head during the hours-long procedure. It will help your surgeon accurately place the electrodes. Next, an MRI scan creates a 3D image of your brain. The surgeon uses this image to decide where to place the electrodes.

Implantation

Next, the surgeon implants the electrodes, which are embedded in a thin wire called a "lead." The lead is carefully guided into your brain through a small hole made in your skull. You may need just one lead, or you may need them placed in both sides of your brain. Typically, you'll be awake during the procedure. That's so you can talk with the neurologist to make sure the electrodes are stimulating the right parts of your brain.

Pulse Generator

The leads will be connected to a battery-operated device called a pulse generator. It can be implanted at the same time as your electrodes, or this may be done in a separate surgery. You'll be given medicine to put you to sleep when it is implanted. It's placed just under the skin of your chest.

Conclusion

A few weeks after your surgery, your doctor activates your generator. It is programmed to send the specific pulses that stabilize your brain's activity. You'll be able to control the generator with a remote control. Your healthcare provider will help you learn to use it to manage your symptoms effectively.