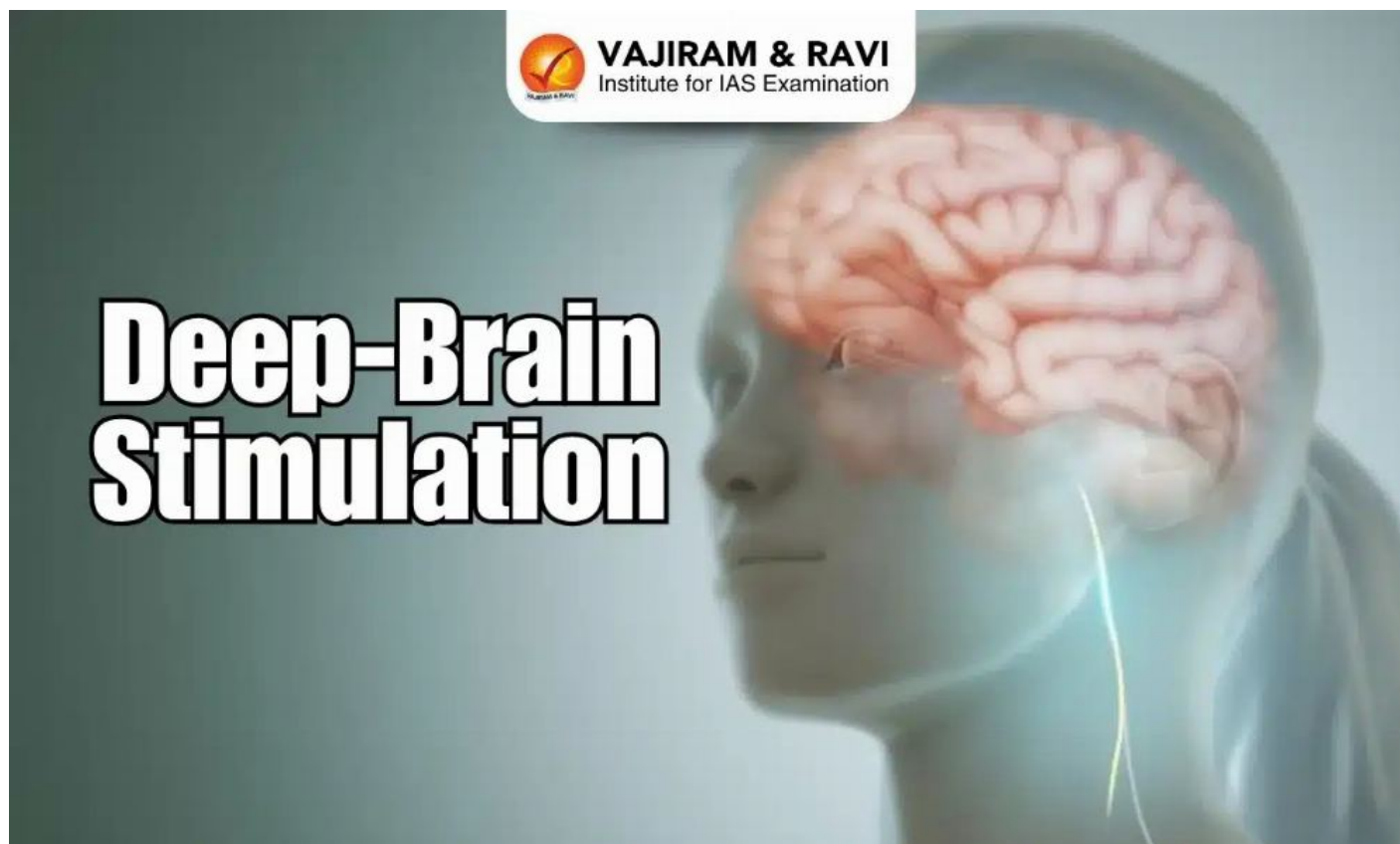


Deep-Brain Stimulation

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Deep-Brain Stimulation Latest News

More than 1.6 lakh people worldwide have received Deep-brain stimulation (DBS).

About Deep-Brain Stimulation

- It is a **medical technique** where **doctors implant electrodes deep inside** specific areas of the **brain** to treat certain disorders.
- **How does it work?**
 - These electrodes are connected by wires to a small device, similar to a heart's pacemaker, which is usually placed under the skin in the upper chest.
 - The device **sends controlled, mild electrical impulses to targeted brain regions**, helping adjust abnormal brain activity or chemical imbalances.

Application of Deep-Brain Stimulation

- DBS is most commonly used for movement disorders, especially in people with **Parkinson's disease, essential tremor, and dystonia**, whose symptoms no longer respond well to medication.
- It has also been approved for some psychiatric conditions like **obsessive-compulsive disorder**, and is being studied for severe depression and epilepsy.
- DBS works by modifying how groups of neurons talk to each other. Many of these disorders involve faulty electrical signals in the brain.
- Delivering electrical pulses through DBS can interrupt these erratic signals, helping reduce symptoms such as tremors or muscle stiffness.

Advantages of Deep-Brain Stimulation

- One advantage of DBS is that, unlike brain surgery that destroys tissue, its effects are reversible: if you turn off the device, the stimulation stops.
- It is believed to help normalise disrupted brain circuits at both the cellular and network levels.

Source: **TH**

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