# VIM Stimulation

- Mechanisms of HNE mediated NLRP3 promoting EMT in chronic rhinosinusitis with polyps
- Efficacy and safety of multiple-target deep brain stimulation in non-parkinsonian movement disorders: a systematic review
- MRI-guided Focused Ultrasound VIM Thalamotomy with Indwelling GPi DBS Electrodes: A Case Report
- Metabolic effects of deep brain stimulation in Parkinson's disease - a systematic review and meta-analysis
- Phosphorylated TDP-43 and tau deposition around the tip of deep brain stimulation leads
- Wearable peripheral nerve stimulator reduces essential tremor symptoms through targeted brain modulation
- Lead-Shift Error and Pneumocephalus in Awake, Robotic Deep Brain Stimulation Patients
- The Effects of Deep Brain Stimulation on Balance in Parkinson's Disease as Measured Using Posturography-A Narrative Review

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Deep Brain Stimulation (DBS): In DBS procedures, electrodes are implanted into specific brain regions, including the VIM. These electrodes deliver controlled electrical impulses, modulating the abnormal neural activity associated with movement disorders and providing relief from symptoms like tremors.

Essential Tremor (ET): Essential tremor is a neurological disorder characterized by rhythmic and involuntary shaking, often affecting the hands. VIM-DBS has been shown to be effective in reducing tremors in individuals with essential tremor who do not respond well to medications.

Parkinson's Disease: While the primary target for DBS in Parkinson's disease is often the subthalamic nucleus, VIM-DBS may also be considered in some cases, especially for controlling tremors.

Programming and Adjustment: Following the implantation of electrodes, the DBS system needs to be carefully programmed and adjusted to achieve optimal symptom control while minimizing side effects. This process is typically done by neurologists or specialists with expertise in DBS programming.

Multidisciplinary Approach: The decision to pursue VIM-DBS or other surgical interventions involves a comprehensive evaluation by a multidisciplinary team, including neurologists, neurosurgeons, and other healthcare professionals.

Understanding the role of the ventral intermediate nucleus and its involvement in movement control is crucial for developing targeted therapies, particularly for individuals with movement disorders where abnormal neural activity in this region contributes to symptoms.

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Deep brain stimulation (DBS) in thalamic ventrointermediate nucleus (VIM) is the traditional target for the surgical treatment of pharmacologically refractory essential tremor (ET) or parkinsonian tremor.

Studies on DBS in the posterior subthalamic area (PSA), including the zona incerta (Zi) and the prelemniscal radiation (Raprl), have shown promising results in tremor suppression [1) 2) 3) 4) 5) 6) 7) 8) 9) 10)]

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Side effects of Vim stimulation include: paresthesias, H/A, dysequilibrium, dysarthria, dystonia & localized pain.

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