

ADVANCED TREATMENTS FOR PARKINSON'S DISEASE

These treatments address symptoms that traditional medications may not.

BOTULINUM TOXIN INJECTIONS

Indications

- Drooling
- Dystonia
- Spasticity
- Tremors

Drug names

- Botox
- Xeomin
- Myobloc
- Dysport

Treatment

- Solution is easily injected in the office.
- Effects last for approximately three months.

Side effects

- From overdose
 - Difficulty swallowing
 - Difficulty breathing

MRI-GUIDED FOCUSED ULTRASOUND

Indication

- There's a medication-resistant tremor in one hand, usually the dominant one.
- Treatment does not address any symptom other than a tremor.

Treatment

- An ultrasound beam is aimed at a specific area in the brain that generates the tremor, burning a small hole about the size of a grain of rice.
- There is no incision or hardware implanted in the body.

Side effects

- Impaired balance
- Slurred speech
- Side effects are usually temporary but may be permanent

DEEP BRAIN STIMULATION (DBS)

Indication

- May be an effective treatment for many Parkinson's disease (PD) symptoms when medications lose their effect or cause intolerable side effects
- Very effective for tremor and dyskinesia but not for speech or balance issues

Treatment

- A small hole is drilled into the skull and a wire electrode is implanted into various parts of the brain, depending on the symptoms.
- The brain electrode is connected to a generator the size of a small hockey puck.
- The generator is implanted under the collarbone.
- The generator sends electrical impulses to the brain electrode, resulting in improvement of the PD symptoms.
- DBS settings can be fine-tuned to treat particular symptoms and minimize side effects.
- The settings can be changed to address evolving symptoms.

Risks

- Because DBS is a surgical procedure, it carries the risk of bleeding and infection since hardware is implanted inside the body.
- Out-patient surgery is required every 3-5 years to change the generator battery located in the chest wall.