



Giving your life back to you

VERCISE™
Deep Brain Stimulation Systems

Meet Pedro, a Boston Scientific DBS patient. To learn more about his story, go to page 11 of this brochure.

About Movement Disorders

Movement disorders are neurological conditions that affect the body's ability to control or initiate movement. Tens of millions of people are afflicted with a movement disorder worldwide.¹ Three of the most common movement disorders are Parkinson's disease, dystonia, and essential tremor.

Parkinson's disease is caused by a deficiency of dopamine-producing cells. The shortage of dopamine, a substance that is used in the brain to transmit signals, causes the symptoms of Parkinson's disease to appear.





About Movement Disorders

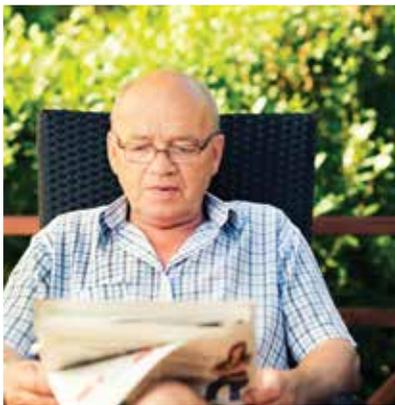
Dystonia is a condition that causes sustained muscle contractions triggering twisting and repetitive movements or unintended postures. Dystonia can affect a specific area of the body or be more widespread throughout several muscle groups. These muscle contractions can be painful and interfere with day-to-day activities.

Essential tremor is an involuntary and rhythmic tremor that can affect any part of your body, although manifestation in the hands is most common.



Understanding Deep Brain Stimulation

Deep Brain Stimulation (DBS) is a treatment that can help reduce some of the symptoms of movement disorders, such as Parkinson's disease, dystonia, and essential tremor. DBS uses a small medical device that is implanted in your body to stimulate a portion of your brain. The treatment may help to improve your motor functions that are affected by Parkinson's disease such as tremor, slowness, and rigidity.



Although DBS is not a cure, it may help improve your day-to-day experiences. For Parkinson's disease patients, most people will continue to take their medications but often at a reduced dosage. Because your medication may be lessened, you may also have a reduction in some of the medication-related side effects such as motor fluctuations (ON-OFF condition) and involuntary movements, also referred to as dyskinesia. For dystonic and tremor patients, DBS therapy may reduce some of the primary symptoms and improve daily life.



How DBS Works

Deep Brain Stimulation uses a device similar in size and shape to a cardiac pacemaker. It sends signals to your brain to help control the symptoms of movement disorders. Your doctor will place one or two insulated wires called “leads” ① in the brain. The leads are then connected to the stimulator, ② and the stimulator is placed under the skin in the chest. When the stimulator is turned on, it produces mild electrical impulses ③ that stimulate a specific target within the brain. The stimulation may help regulate the incorrect signaling in the brain, improving some of the symptoms of movement disorders.



Vercise™ Portfolio of Deep Brain Stimulation Systems

Designed to help you live life again

Comfort, for your lifestyle

- Our ultra-lightweight, thin battery was designed with smooth and gently rounded edges to maximize your comfort and reduce visibility after implantation.

Intelligence, with options

- All our systems come with industry-leading precision technology standard, enabling your doctor to deliver therapy with precision, and the flexibility to adapt your treatment as the needs of your condition change.

Patients: first, and always

- From start to finish, we designed our products with patients in mind. And we're with you every step of the way.



As a DBS Patient, You Have Choices...

Only Boston Scientific brings you **directional stimulation** with **Multiple Independent Current Control** technology.

Boston Scientific's Vercise Directional System* is designed to **give your doctor control** over the size and shape of your stimulation.

This ability to direct the therapy to the area of your brain responsible for coordinating movement, and steer it away from regions associated with side effects, may result in **a more precise therapy.**

As a patient, you may make fewer tradeoffs to **achieve the results you want.**

What is MICC and why is it so important in DBS?

- **Multiple Independent Current Control** is a long name for a simple and elegant idea.
- Doctors use MICC to **control the placement and intensity** of your DBS therapy with precision.
- As a movement disorder patient, this means that as the needs of your condition change, your DBS system from Boston Scientific gives you and your doctor the **options you need, when you need them.**

*A system that includes the Vercise™ PC or Vercise Gevia™ IPG and Vercise Cartesia™ Lead(s) form the Vercise Directional System.

A Life Transformed

"I feel really lively, like I'm young again. I've got my life back. I now have huge expectations for the future. I still have a lot to do."

Pedro Curry
Parkinson's Disease Patient

Retired architect Pedro Curry loved to paint and draw, but when his Parkinson's disease progressed, he could no longer draw a straight line. Unable to walk and confined to a wheelchair, he consulted a physician who suggested he might be a candidate for Deep Brain Stimulation (DBS). After a series of preoperative tests, Pedro decided to move ahead with the surgery. He entered the hospital in a wheelchair and, following a successful procedure, was able to walk away on foot three days after his surgery. Today Pedro is living his life again, walking, painting, and spending time with family.

Individual results may vary. Not every individual will experience the same benefits.



Frequently Asked Questions

Q: Is Deep Brain Stimulation safe?

A: The short- and long-term safety of DBS has been well-established. Deep Brain Stimulation has been around for over two decades. More than 100,000² patients have been treated with DBS for a variety of illnesses.

You should review the risks of DBS with your physician.

Q: What are the possible benefits of DBS?

A: DBS may help you to control some of the disabling symptoms of your condition. You may be able to increase your daily life activities and improve your overall quality of life. DBS is a non-destructive form of surgery. It is also reversible. The stimulator and lead can be removed, or the entire system can be turned off at any time.



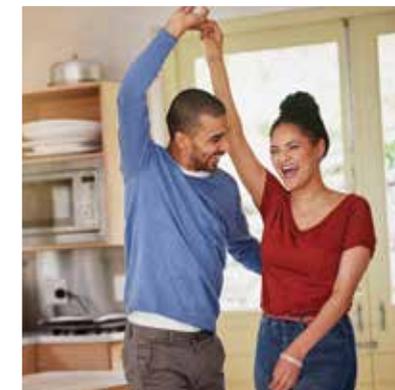
Q: How long will my DBS system last?

A: While results will vary depending on individual settings, Vercise Gevia™, Boston Scientific's rechargeable system, is designed to last up to 25 years. The battery longevity of the non-rechargeable system, Vercise™ PC, is dependent on the individual settings your condition may require. On average for Parkinson's disease, the system may last for 3–5 years.

Q: Can I travel with my DBS system?*

A: Yes, you can travel with your DBS system. Metal detectors, X-ray machines, security scanners, and other security devices will not damage the implant but may cause unintentional stimulation.

The implant may also activate metal detector alarms. It is recommended you carry your patient ID card at all times.



*Please review the back cover of this brochure.



Q: What are the possible risks of DBS?*

A: As with any surgical procedure, there are risks involved. Please discuss these risks with your physician.

Q: Can I get an MRI?

A: While the Vercise Gevia™ system is MR conditional, you must consult with your healthcare provider to determine your individual MRI eligibility.*

*Please review the back cover of this brochure.

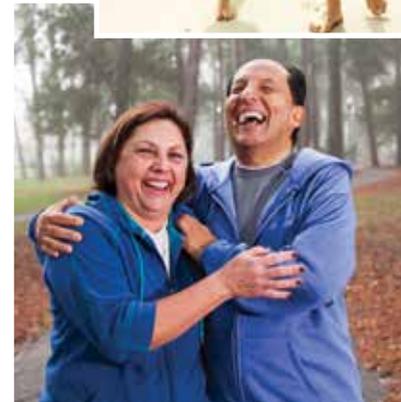
Q: Could I be a candidate for Deep Brain Stimulation?

A: For Parkinson's patients, the ideal candidate has responded positively to levodopa treatment but is unable to control the motor symptoms of his or her disease with medication alone. For dystonic patients, the ideal candidate is at least 7 years old and no longer achieves sufficient dystonia symptom relief with medications alone.

DBS surgery should be carried out by an experienced neurosurgeon working as part of an interdisciplinary team. Your neurologist and other physicians with whom you work closely can determine if DBS is a suitable therapy for you and your symptoms.

Q: Where can I go to learn more?

A: For more information, go to bostonscientific.com.



References

1. Parkinson's disease Fact Sheet. European Brain Council.
Accessible at: <http://www.braincouncil.eu/library/disease-fact-sheets/parkinsons-disease/>; accessed April 7, 2017;
Zesiewicz T. et al. (2010). Overview of essential tremor. *Neuropsychiatr Dis Treat.* 6: 401 – 408.
2. Lozano and Lipsman. (2013). Probing and regulating dysfunctional circuits using deep brain stimulation. *Neuron.* 77(3): 406 – 24.

Indications for Use

The Boston Scientific Corporation (BSC) DBS Systems are indicated for use in the following:

- Unilateral or bilateral stimulation of the subthalamic nucleus (STN) or internal globus pallidus (GPI) for levodopa-responsive Parkinson's disease that is not adequately controlled with medication.
- Unilateral or bilateral stimulation of the subthalamic nucleus (STN) or internal globus pallidus (GPI) for intractable primary and secondary dystonia, for persons 7 years of age and older.
- Thalamic stimulation for the suppression of tremor not adequately controlled by medications in patients diagnosed with essential tremor or Parkinson's disease.

When the Device Should Not be Used (Contraindications): The DBS Systems are not for patients who will have any form of diathermy either as a treatment or as part of a surgical procedure, are unable to operate the system, and are poor surgical risks.

Patients implanted with the Vercise™ DBS Leads-only (before IPG implant) and Vercise Gevia™ DBS System with Image Ready™ MRI Technology will be able to have an MRI examination when specific conditions are met. These conditions are specified in the ImageReady MRI Guidelines for Boston Scientific DBS Systems.

Warnings: Patients implanted with BSC DBS Systems without ImageReady MRI Technology should not be exposed to Magnetic Resonance Imaging (MRI). Patient exposure to MRI can cause dislodgement of implanted components, damage to the device electronics, and unpredictable levels of stimulation, distortion of the MRI image, and/or personal injury or even death. As a Deep Brain Stimulation patient, you should not have diathermy as either a treatment for a medical condition or as part of a surgical procedure. You should not modify your system or be exposed to high stimulation levels. Strong electromagnetic fields, such as power generators or theft detection systems, can potentially turn the stimulator off, or cause uncomfortable changes in stimulation. The system should not be charged while sleeping. The Deep Brain Stimulation System may interfere with the operation of implanted sensing stimulators such as pacemakers or implanted cardiac defibrillators. Advise your physician that you have a Deep Brain Stimulator before going through with other implantable device therapies so that medical decisions can be made and appropriate measures taken. Patients should operate motorized vehicles or potentially dangerous machinery with caution. Your doctor may be able to provide additional information on the Boston Scientific Deep Brain Stimulator systems. It is unknown if the device may cause complications with pregnancy and/or hurt an unborn baby.

For a copy of the Boston Scientific Deep Brain Stimulation System Information for Patients, including indications for use, contraindications, warnings, precautions, and possible side effects, or if you have a specific question or issue, please contact your healthcare professional.

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NM-416413-AA_MAY2017