Studies have shown that in select Parkinson's patients, DBS and medical therapy can alleviate the symptoms of the disease better than medications alone. With essential tremor, nearly 70 percent of patients have seen a significant or complete relief from their symptoms.

How the deep brain stimulation procedure works

The DBS procedure is made up of two separate surgical stages. In the first, the patient has a very thin electrode, or lead, implanted into a specific region of the brain. This is done using incredibly sophisticated equipment to allow for precise placement. At the end of the lead are four contacts, which provide adjustable electrical pulses to areas of the brain. Generally, patients will be kept awake for portions of this procedure in order to provide important information and feedback regarding lead placement.

In a separate procedure, the patient is put to sleep to have the lead connected to a wire called an extension and attached to a neurostimulator generator which has been implanted under the patient's collar bone or in the abdominal area. A neurostimulator is essentially a brain pacemaker. Its job is to control the release of electrical signals to the region of the brain where the lead is implanted and allows for adjustment in the electrical signals long after surgery.
Deep brain stimulation and Mercy Spine Program

Beginning in late summer 2013, Mercy Spine Program will begin offering DBS as an available treatment option for our patients with the hiring of Dr. Esmiralda Henderson, the only deep brain stimulation fellowship-trained neurosurgeon in central Iowa to perform this procedure. Dr. Henderson brings her clinical expertise in managing patients with movement disorders, such as Parkinson’s disease, dystonia, tremor, chronic pain as well as conditions such as depression and obsessive-compulsive disorder.

The addition of Dr. Henderson to Mercy Neurosurgery means access to care and treatment for thousands of patients in central Iowa currently suffering from Parkinson’s and other movement disorders. By seamlessly partnering with the renowned experts at Mercy Ruan Neuroscience Center, a full spectrum of ongoing care and support is now available.

Dr. Esmiralda Henderson

Dr. Henderson is coming to Mercy Medical Center - Des Moines from Wexner Medical Center at Ohio State University, where she completed her neurosurgical residency and functional and stereotactic neurosurgery fellowship. Her fellowship included training in deep brain stimulation (DBS) surgery with a world-renowned functional neurosurgeon Dr. Ali Rezai.

Dr. Henderson is the only deep brain stimulation fellowship trained neurosurgeon in central Iowa.

Learn more.

To learn more about deep brain stimulation and your treatment options, contact Mercy Spine Program at (515) 358-0100 or www.mercydesmoines.com/neurosurgery or Mercy Ruan Neuroscience Center at (515) 358-0011 or www.mercydesmoines.com/ruan.