

# Managing movement disorders

Approximately six million Americans suffer from Parkinson's disease or other types of movement disorders. And for these individuals, even the most basic daily activities can be near impossible.

Recognized by the National Parkinson Foundation as one of its worldwide Care Centers, Hoag Hospital is committed to improving the lives of those battling movement disorders. Through its comprehensive, multidisciplinary movement disorders program, Hoag provides expert medical care, the latest surgical options and sophisticated physical, occupational and speech therapy programs.

## Individualized care

"As a leader in the management and treatment of movement disorders, Hoag focuses on providing the best individualized care for each of our patients," explains Hoag neurologist Janet Chance, MD. "Our goal is to utilize the latest medications and therapies to improve the quality of life for these patients and enable them to maintain the highest level of independence."

"The primary treatment for movement disorders centers on employing the latest in drug therapy," continues Dr. Chance, who heads Hoag's Parkinson's Center and is regarded as the leading authority on Parkinson's disease in Orange County. "Most patients benefit greatly from this course of action, particularly in combination with diet, physical therapy and exercise."

## Innovative surgical options

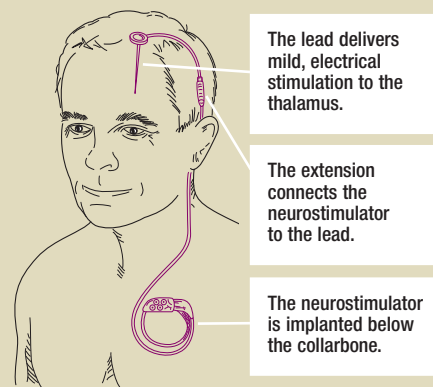
Another development in tremor control therapy is deep brain stimulation (DBS), indicated for patients with disabling symptoms despite optimization of drug therapy.

DBS surgery involves implanting a wire lead with electrodes through a small skull incision and positioning it within the targeted area of the brain. A further procedure involves implanting a neurostimulator just under the skin and below the collarbone. The leads run from the neurostimulator up the back of the neck and skull and into the targeted brain area. Once in place, electrical impulses are sent from the neurostimulator through the lead and into the brain. These impulses interfere with and block the electrical signals that cause tremor—reversibly altering the abnormal function of the brain tissue in the region of the electrode.

The success of deep brain stimulation is directly related to finding the specific area in the brain for stimulation. Therefore, in addition to MRI and CT imaging, during the procedure, microelectrode recording is utilized to record the brain's nerve activity in order to pinpoint the precise location to implant the electrode.

"This is a highly sophisticated surgery in a very sensitive area of the brain. It requires an amazing amount of accuracy and skill," explains Christopher Duma, MD, a functional stereotactic neurosurgeon at Hoag who is involved with pioneering work in the surgical management of movement disorders.

And the procedure, which is offered in only a handful of elite neurosurgical



*Best described as a pacemaker for the brain, Deep Brain Stimulation helps ease the symptoms associated with Parkinson's disease and other movement disorders.*

programs across the country, has been effective in upwards of 95% of cases at Hoag. "The patients we've treated have experienced marked improvement," Dr. Duma asserts. "Once the generator is turned on, the tremor disappears within seconds. It really is quite a dramatic response."

## Sophisticated therapies

"Successful management of movement disorders involves a complete spectrum of care—physical, psychological and emotional," explains Dr. Chance. "Innovative drug therapies and advanced treatment options are essential, but so are support programs aimed at improving a patient's overall well being."

Hoag's physical and occupational therapy programs offer targeted therapies in gait and balance treatment, fall-prevention training and combating swallowing problems; and an innovative speech therapy program is aimed at improving voice projection and diction.

*For more information on Hoag's movement disorders program or to refer a patient, please call 949/764-XXXX.*