

SENTARA COMPREHENSIVE MOVEMENT DISORDERS PROGRAM



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SENTARA NEUROSCIENCES

SENTARA COMPREHENSIVE MOVEMENT DISORDERS

The Sentara Comprehensive Movement Disorders Program is the only comprehensive treatment program in the South Hampton Roads area. This program integrates the care of an experienced movement disorders neurologist and advanced practice clinicians, who guide our patient through an individualized treatment program using the most advanced Parkinson's disease therapies and research. In addition to working closely with several neurosurgeons, our program offers evaluation and management of surgical therapy options, such as Deep Brain Stimulation. With our integrated therapy program, which includes physical, speech, occupational and music therapies, we provide a comprehensive care plan for patients to enhance their quality of life. Furthermore, our program is very active in numerous clinical trials for promising new therapies, including those that may one day prove to slow the disease progression.

PARKINSON'S DISEASE

Parkinson's disease is a brain disorder. It occurs when certain nerve cells (neurons) in a part of the brain that controls movement become impaired. Normally, these cells produce a vital chemical known as dopamine. Dopamine allows smooth, coordinated function of the body's muscles and movement. When approximately 80 percent of the dopamine-producing cells are damaged, the symptoms of Parkinson's disease appear. Parkinson's disease usually affects people over the age of 50 but can occur at any age. It is a movement disorder that is chronic and progressive, meaning that symptoms continue and worsen over time. Nearly one million people in the United States are living with Parkinson's disease.

The cause of Parkinson's is unknown. Although there is presently no cure, our specialists help patients manage its symptoms with treatment options such as medication and surgery. Our collaborative team of doctors includes movement disorders neurologists with expertise in Parkinson's diagnosis and treatment.

SYMPTOMS OF PARKINSON'S

Symptoms of Parkinson's disease vary from patient to patient. They appear slowly and in no particular order. Years may pass before symptoms interfere with normal activities.

The diagnosis of Parkinson's requires a careful medical history and a physical examination to detect the primary signs of the disease, including:

- Rigidity: Stiffness when the arm, leg or neck is moved back and forth
- Resting tremor: Tremor when a body part is relaxed, such as in the hand, foot or chin
- Bradykinesia: Slowness in initiating or maintaining movement
- Loss of postural reflexes: Patients have poor balance and may fall

MORE SUBTLE SYMPTOMS MAY INCLUDE:

- Small cramped hand-writing
- Decreased arm-swing or scuffing of the foot on the affected side when walking
- Decreased facial expression
- Lowered voice volume
- Feelings of depression or anxiety
- Episodes of feeling "stuck in place" when initiating a step
- Increase in dandruff or oily skin
- Less frequent blinking or swallowing
- Vivid or active dreaming
- Loss of sense of smell



DIAGNOSIS AND TREATMENT OF PARKINSON'S

Sentara is committed to helping patients facing Parkinson's improve their quality of life. Our patients work with fellowship-trained movement disorder specialists and even participate in research and clinical trials. And because our approach to treatment is uniquely holistic, a patient can explore medical treatment, physical therapy, speech therapy and occupational therapy as well as other options for helping with symptoms.

Sometimes an accurate diagnosis of Parkinson's in its early stages can be difficult. You may have already experienced this frustration. If you think you may have Parkinson's, it's important to seek the care of a movement disorders neurologist who specializes in the disease.

To diagnose Parkinson's, our specialists will carefully review your health history and perform an examination. If felt needed, a nuclear medicine scan called a DAT scan, may be ordered. This is a type of SPECT scan that specifically looks at dopamine level in the part of the brain where Parkinson's disease occurs.

Providers may also perform a blood test and brain scan (MRI) to rule out other conditions that have similar symptoms.



MEDICAL TREATMENT

Many of the symptoms associated with Parkinson's are caused by lack of dopamine and other organic chemicals produced by the brain. Current medicines work primarily on the dopamine system to improve rigidity and slowness associated with Parkinson's disease, and sometimes tremors.

It is common for people with Parkinson's to need a combination of medications to treat symptoms. Many new medicines are being studied that may work in different ways to treat symptoms and slow the progression of the disease.

SURGICAL TREATMENT

Currently, the most commonly used surgical treatment of Parkinson's is a procedure called Deep Brain Stimulation (DBS). This procedure is performed by a neurosurgeon experienced in this type of surgery. Our specialists will help to determine if you are a good candidate for this surgery. A pre-surgical evaluation by the movement disorders team is needed to make that determination.

During this surgery, doctors will place electrodes in the specific areas of your brain. A device called an impulse generator or IPG (similar to a pacemaker) is implanted under your collarbone to provide an electrical impulse to a part of the brain involved in motor function.

While deep brain stimulation is not a cure for Parkinson's, and it does not slow disease progression, it can dramatically relieve some symptoms and improve your quality of life. Studies show benefits lasting at least five years. We currently offer DBS clinics specifically for patients who have had this procedure. This allows us to finely tune your treatment, which may allow for reduction in medications.



TREMORS

Tremors are unintentional trembling or shaking movements. Most tremors occur in the hands, but you can also have arm, head, face, vocal cord, trunk and leg tremors. Although most common in middle-aged and older people, anyone can have tremors.

Tremors may not be a sign of other neurological problems, as they commonly occur in otherwise healthy people. Sometimes, however, diseases such as Parkinson's disease, multiple sclerosis, stroke or certain medicines can cause them. Some forms of tremors are genetic, while others are due to other medical conditions or even medications.

Tremors are not life threatening. Some people find them embarrassing, however, and they can make it hard to perform daily tasks.

There are a number of different categories of tremor, including:

- Essential Tremor
- Parkinsonian Tremor
- Cerebellar Tremor
- Orthostatic Tremor

Tremor can result from other conditions as well, and so being evaluated by a Movement Disorders Neurologist is recommended.

DIAGNOSIS

During a physical and neurological exam a doctor will check whether the tremor occurs primarily during action or at rest, as well as for tremor symmetry, speed and quality. Additional associated features will be evaluated as well. The physician will take a detailed family history to determine if the tremor is inherited. In some cases, blood or urine tests can detect other metabolic causes of tremor. These tests may also help to identify contributing causes, such as drug interaction, or another condition or disease.

Diagnostic imaging using computerized tomography or magnetic resonance imaging may help determine if there is a lesion or other damage in the brain causing the tremor.

TREATMENT

There is no cure for most tremors, but there may be treatment to relieve them. This treatment depends on their cause. Medicines and some surgical procedures, such as DBS, can reduce or stop tremors and improve muscle control, but the appropriate treatment depends on accurate diagnosis of the cause.

Diet and physical therapy may also help as well. For example, eliminating tremor “triggers,” such as caffeine or stress, is often recommended. Furthermore, physical therapy may help to reduce tremor and improve coordination and muscle control for some individuals.





CARE TEAM

"Knowledge of disease mechanism, risk factors and effective treatments of Parkinson's disease has grown tremendously over the last 10 years. We now realize the best approach to treating the symptoms and the disease process is one of action. Medications play a role in helping with symptoms, but other therapies and approaches are just as important as any medication. Our team approach uses a combination of exercises through Physical, Occupational and Speech therapies, an active lifestyle, and novel techniques such as music, dance, gaming, art, and recreational therapies: has vastly improved the quality of life of persons living with Parkinson's disease; and is rapidly becoming a standard of care."

- Dr. Karen Thomas, Director, Sentara Comprehensive Movement Disorders Program

OUR TEAM

The depth and expertise within the Sentara Neurosciences provides the highest level of specialized care for patients. Our collaborative team consists of subspecialized physicians, advanced practice clinicians, nurses, specialized therapists and research coordinator.

- **Movement Disorders**
Neurologist - A subspecialized, board certified Neurologist with fellowship training (extra training beyond residency) focused on the diagnosis of Parkinson's Disease and related Movement Disorders.
- **Functional Neurosurgeon** - A board-certified neurosurgeon, focused on restoring function with surgery.
- **Neuropsychologists** - These specialized clinicians are Doctors of Psychology who evaluate cognitive (thinking and memory) problems.
- **Advanced Practice Clinicians (APC)** - Physician Assistant or Nurse Practitioner, that is licensed to practice medicine under supervision of a physician, with additional training by the Movement Disorders Neurologist.
- **Registered Nurses** - Registered nurses (RNs) in the office act as navigators of PD patient care both in and out of the clinic setting, providing support and direct outreach for care needs.
- **Medical Assistants** - Medical assistants work in the office assisting the doctors and APCs in all aspects of direct patient care, as well as interacting with patients and caregivers on the phone or through other methods.
- **Parkinson's Disease Therapists** - Licensed physical and speech therapists specially trained and certified in working with PD patients in therapy programs such as BIG and LSVT.
- **Music Therapist** - Through the use of music as a treatment method, a board-certified music therapist uses rhythm and melody to improve mobility, gait, dexterity, multitasking and mood.
- **Research Coordinator** - Oversees recruitment, communication and implementation of available research projects in PD.

To schedule an evaluation call 757-507-0600 and ask to make an appointment with Dr. Karen Thomas or Leslie Matson, PA-C.



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