

| Adult Neurology | | |
|-------------------------|------------------------|--|
| Reed C. Perron, MD | John T. Nasr, MD | |
| Hugo N. Lijtmaer, MD | Amrit K. Grewal, MD | |
| Daniel R. Van Engel, MD | Olga Noskin, MD | |
| Kenneth A. Levin, MD | Yamini Naidu, MD | |
| Kenneth A. Citak, MD | Daniel Berlin, MD, MSo | |
| James T. Shammas, MD | Fumin Tong, MD, PhD | |
| Susan P. Molinari, MD | Elena Zislin, PA-C | |

| Pediatric Neurology | Managing Partner |
|----------------------------------|--------------------|
| Peter L. Heilbroner, MD, PhD | Hugo N. Lijtmaer |
| Jennifer A. Cope, MD | |
| Alexis M. Dallara-Marsh, MD | Chief Operations O |
| Mitchell Steinschneider, MD, PhD | David T. Contento |
| Heather Weiner, APN | |
| | . ~ |

ugo N. Lijtmaer, MD

hief Operations Officer avid T. Contento, FACMPE

Neuro Rehabilitation Center Kenneth A. Citak, MD John Jensen, PT Medical Director Director of Rehabilitation

Parkinson's Disease

Parkinson's disease (PD) is a progressive neurological disease that affects movement. It starts gradually and is progressive over time. It is one of the most common neurological disorders, affecting about 1% of adults over 60 years old. There are many different medications that can reduce the symptoms and help prevent disability.

Common symptoms of Parkinson's disease include:

- Tremor
- Slow movements
- Stiffness
- Reduced coordination and balance
- Difficulty walking
- Diminished facial expression
- Decreased arm swing when walking
- Stooped posture

Parkinson's disease is diagnosed clinically, based on a patient's symptoms and signs noted on a neurological examination. An MRI of the brain is often performed to exclude other conditions that can mimic PD. In situations where the diagnosis is in questions a DAT-SPECT scan can sometimes be helpful in confirming the diagnosis.

The goal of medical management in Parkinson's disease is to control symptoms as much as possible while trying to minimize side effects. Medications help to reduce symptoms and improve the patient's quality of life. Common medications include Levodopa/Carbidopa (Sinemet), dopamine agonists (such as pramipexole and ropinirole), MAO-B inhibitors (such as rasagiline and selegiline) and COMT inhibitors (such as entacapone and tolcapone). An experienced neurologist can help to determine the medication regimen that is most appropriate for each patient. In severe or advanced cases, deep brain stimulation can be considered (implantation of a battery-operated device that delivers electrical stimulation to specific areas in the brain that control movement, to block the abnormal signals causing the symptoms of PD.

Research has shown that exercise and physical therapy can improve many PD symptoms (people who start exercising earlier in the disease and who do at least 2.5 hours of exercise a week show a slower decline in quality of life compared to those who start later). Exercise should include stretching and flexibility exercises, aerobic activity and resistance or strengthening exercises. Activities such as biking, running, yoga Tai Chi, Pilates, dance, and weight training all have benefits for patients with PD. Check with your physician or physical therapist before starting an exercise program, to make sure the activities are appropriate.

For more information contact the Parkinson's Foundation at parkinsons.org or call 1-800-4PD-INFO (473-4636).