

Parkinson's Disease

Condition: Parkinson's disease is a progressive movement disorder resulting from the loss of nerve cells in the brain that produce a substance called dopamine.

Background: The cause of Parkinson's disease is unknown. One in every 800 individuals develops the condition, which is more common in men than in women.

Risk Factors: Parkinson's disease increases with age, with 90% of patients above 45 years of age. Its cause is not entirely known, although for some patients, it is the result of an inherited genetic mutation. Exercise throughout adulthood may reduce a person's risk.

History and Symptoms: Often symptoms of Parkinson disease begin on one side of the body, with early symptoms including difficulty with fine motor movements such as buttoning or writing, diminished foot or arm movement or tremor. Other symptoms include stiffness, imbalance, difficulty swallowing, constipation and urinary incontinence. Patients may also experience softer speech, fatigue, forgetfulness, loss of smell, anxiety, depression, and sleep disorders. Symptoms of late-stage Parkinson disease include an expressionless face, stooped posture, and progressive difficulty with standing up and walking due to problems with balance, movement and "freezing" or difficult with starting leg movement.

Physical Exam: Healthcare providers conduct thorough physical exams, looking for the specific signs and symptoms described above that are seen in Parkinson's disease.

Diagnostic Process: Although the diagnosis is often made clinically, diagnostic tests may include a DaTscan, which measures whether a specific injected radioactive tracer is taken up by the brain normally in an area of the brain affected by Parkinson's disease. It may be abnormal in other disorders also, however. MRI scans of the brain are usually used to rule out other conditions that have similar symptoms. Sleep studies, swallowing studies and psychological testing may be used to assess the severity of a problem in these areas as well as indicate how to best intervene.

Rehab Management: Exercise treatment should be started as soon as the diagnosis of Parkinson's disease is made. Physical medicine and rehabilitation (PM&R) physicians, also known as physiatrists, assess the patient's impairments and function with recommendations made for exercise and other therapy interventions. Periodic reassessments and adjustments in the exercise program should be made throughout the disease course. Balance training, stretching and strengthening exercises, and aerobic activity are utilized to help to improve and maintain a patient's function. Recommendations are often made for physical therapists to provide exercises to help with balance and walking and occupational therapists for fine motor activities and to provide information or equipment to help with activities of daily living. Speech therapy may be recommended for training to improve a soft voice, swallowing function or cognitive problems.

A number of different types of medications are available to manage symptoms, including tremors and stiffness and are generally started by a neurologist. When to start these medications in the condition's early stages is dependent on how symptoms are affecting the patient. Carbidopa/levodopa is a commonly used drug however timing of medication may require frequent adjustment and using several medications is often done to help with symptoms and minimize side effects.

Deep brain stimulation or other surgical procedures are used when the patient develops symptoms such as excessive movements (dyskinesias) with the use of Parkinson's disease medications, or when the effects of the medications do not last very long ("wearing off") and medications must be taken frequently throughout the day.

Other Resources for Patients and Families: Several organizations can provide information to patients and caregivers about Parkinson's disease and its progression. These include [the Parkinson's Foundation](#), the [Michael J. Fox Foundation for Research](#), and the [American Parkinson Disease Association](#). Support groups can also offer assistance and education.

Frequently Asked Questions

What is PM&R?

Physical medicine and rehabilitation (PM&R), also known as physiatry, is a primary medical specialty that aims to enhance and restore functional ability and improve quality of life to those with injuries, physical impairments or disabilities affecting the brain, spinal cord, nerves, bones, joints, ligaments, muscles and tendons. PM&R physicians, known as physiatrists, evaluate and treat the whole body, maximize patients' independence in their daily life and are experts in designing comprehensive, patient-centered treatment plans to empower patients to achieve their goals. By taking the whole body into account, they can accurately pin-point problems, decrease pain, assist in recovery from devastating injuries and maximize overall outcomes and performance with non-surgical and peri-surgical options. To learn more, visit www.aapmr.org/aboutpmr.

What makes PM&R physicians unique?

PM&R physicians' training focuses not just on treating medical conditions, but on enhancing the patient's performance and quality of life in the context of those medical conditions. They focus not only on one part of the body, but instead on the development of a comprehensive program for putting the pieces of a person's life back together – medically, socially, emotionally and vocationally – after injury or disease. PM&R physicians make and manage medical diagnoses, design a treatment plan and prescribe the therapies that physical therapists or other allied therapists perform or that are carried out by the patients themselves. By providing an appropriate treatment plan, PM&R physicians help patients stay as active as possible at any age. Their broad medical expertise allows them to treat disabling conditions throughout a person's lifetime.

Why see a PM&R physician?

A PM&R physician will thoroughly assess your condition, needs, and expectations and rule out any serious medical illnesses to develop a treatment plan. By understanding your condition and goals, you and your PM&R physician can develop a treatment plan suited to your unique needs.

How do I find a PM&R physician near me?

Visit www.aapmr.org/findapmrphysician or contact your primary care physician for a referral.

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