

The Symptoms of Parkinson's Disease



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This booklet is distributed by National Parkinson Foundation Central & Southeast Ohio Chapter, a non-profit organization serving those afflicted with Parkinson's Disease, their partners and families. The society publishes a monthly newsletter with information for both patients and caregivers as well as establishing local support groups. Completing the form inside the back cover will add your name to the list of those of us fighting Parkinson's disease. If you reside in central or southeast Ohio, we can put you in contact with a nearby support group.

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When you were first diagnosed with Parkinson's you probably had a rather short list of complaints or symptoms to describe. As a patient, I remember my mad scramble, post-diagnosis, to learn more about this disease that had just come into my life. I found a book written for neurologists and was amazed to find a number of other symptoms and problems which I had but never suspected as being related to Parkinson's. If I had read the list of symptoms that follow, I would have said, "Well that explains it".

Our purpose in writing this booklet is not to aid in self-diagnosis. Rather, it is designed to help the newly-diagnosed patient better understand the affliction and identify problems that should be brought to the attention of the treating physician.

This booklet was written under the auspices of the Central Ohio Parkinson Society. Many of our booklets are written in two parts: the first section is written from the patient's perspective and is followed by the physician's comments. The Parkinson's patient has provided the framework for describing the symptoms while the neurologist has provided additional medical detail. The intent is to provide readily understandable and useful information for both patients and family.

A word of caution -- be careful about going too far and blaming Parkinson's for everything. I remember reading Robert Benchley's observation after he read a book on the various diseases in the world and their symptoms. He said that, to his horror, he concluded that he had every single disease in the book except "housemaid's knee".

# **Background**

Before we begin to describe the symptoms and characteristics of Parkinson's disease, you should understand some of the basics of the disease. PD is a neurological disorder in which there is a decrease in the production of dopamine, which is a brain neurotransmitter needed to properly control body movements. The only completely conclusive diagnosis is rendered by microscopic examination of the brain at autopsy. There is no laboratory test to determine whether or not a living patient has PD.

This being the case, the physician must be a careful observer of the patient's symptoms and characteristics. There are both primary and secondary symptoms. As you might guess, not every patient exhibits every symptom. You might not initially relate some of the secondary symptoms to PD. Being aware of all the possibilities will make you more comfortable in discussing them with your doctor.

One final point of background: your doctor will be treating the various symptoms with medication. There is no drug to "cure" PD, so the intent will be to reduce or minimize the symptoms that cause you difficulty. A further complication is that some drugs, as they ease some symptoms, may make other symptoms worse or cause new ones. This booklet will describe various symptoms, but never hesitate to describe your feelings to your doctor, even if you are unsure about their relationship to Parkinson's disease.

#### The Fundamental Features

The clinical hallmarks of Parkinson's disease include the following fundamental features and a variety of secondary symptoms. Everyone is different and patients may not exhibit every symptom. Diagnosis is not dependent on the patient exhibiting all of the cardinal features.

The earliest symptoms of PD may be nonspecific and include weakness, tiredness, and fatigue. Thus, the disease may go unrecognized for some time. More specific symptoms may include: tremor of the resting hands (common in up to 75 percent of patients), a change in speech, difficulty in turning while in bed or walking, and a decreased arm swing while walking. Other early symptoms may be difficulty in starting to walk; difficulty in getting into and out of a chair or car; a change in handwriting where the script becomes smaller; depression; and drooling, especially at night. Patients with moderate disease experience increased difficulty with balance and walking.

The primary symptoms of PD are tremor, slowness and poverty of movement, and stiffness.

#### **Tremor**

Tremor is the rhythmical shaking of the hands or other extremities. In PD, it is more likely to be present "at rest". Another form of tremor, known as essential or familial tremor, is usually more visible when action is performed, which distinguishes it from PD.

# Bradykinesia (slowness of movement)

The decrease in speed and size of body movements in Parkinson's disease is termed "bradykinesia". It is often said that bradykinesia is the "hallmark" of Parkinson's disease. It can affect virtually every body movement including the use of the hands, arm swing while walking, length of stride, facial expression, speed of walking, balance, voice volume and rate of speech.

## **Rigidity**

The increase in muscle tone which occurs in Parkinson's disease is called "rigidity". This manifestation of Parkinson's disease is not usually appreciated by the patient. However, in some instances increase in muscle tone can take the form of sustained muscle contraction called "dystonia". For example, some Parkinson patients will have painful cramps of the foot or calf. Rigidity is noted by your doctor when they grasp a limb and move it and detect resistance.

#### **Postural Abnormalities**

With aging, a slight stoop in posture is common. However, in Parkinson's disease, this bent-forward posture is more pronounced. Some individuals will tend to "lean to one side". This leaning can distort the posture so much that the individual has difficulty standing erect. Amazingly, sometimes Parkinson patients will not be aware that they are bent or leaning to the side. It is as if the brain mechanism which recognizes proper posture and body alignment can no longer perform this function.

In some individuals with Parkinson's disease, postural instability develops. This refers to the fact that these patients have difficulty correcting their posture and maintaining balance. This frequently results in falls. Postural instability is one of the most difficult symptoms to treat in Parkinson's disease. While rigidity, bradykinesia, and tremor typically respond to varying degrees to anti-Parkinson medication (levodopa), postural instability rarely improves. Sometimes aids such as canes and walkers are helpful. In addition, gait training by a physical therapist may also prove valuable.

## **Secondary Symptoms**

Virtually all of the secondary symptoms of Parkinson's disease are simply further manifestations of tremor, rigidity, and bradykinesia.

For example, the "shuffling gait" of Parkinson's disease refers to stooped posture and small, slow steps (bradykinesia). Similarly, the decrease in voice volume in Parkinson's disease is a further example of bradykinesia with failure of the vocal cords to respond quickly and fully while speaking. A decrease in facial expression common in Parkinson's disease is another manifestation of bradykinesia. Blink rate is frequently quite slow.

Micrographia refers to the small hand writing typically seen in Parkinson's patients. This handwriting change might not be obvious when the individual first picks up the pen to write. However, as they write across the page or conclude with the final letters of their signature, the handwritting tends to become very small and may even trail off into a line.

Constipation is very common in Parkinson's disease. It is not completely understood. Some specialists have suggested that it is a further manifestation of bradykinesia. Perhaps it is slowness in movement in the muscles of the bowel wall, abdomen, and pelvic floor which results in constipation. Others have suggested that constipation in Parkinson's disease is due to changes in the part of the nervous system responsible for normal gastrointestinal movements.

Complicating constipation is the fact that many of the medications used to treat Parkinson's disease actually exacerbate this symptom. Constipation in Parkinson's disease is sometimes referred to as an autonomic nervous system abnormality. The autonomic nervous system is part of the central and peripheral nervous system responsible for control of "automatic" functions, like bowel and bladder function, heart rate and blood pressure, sweating and temperature regulation, and breathing. Difficulties with urination are fairly frequent in Parkinson's disease patients; however, this is often difficult to distinguish from other urinary difficulties which are common in aging.

Sexual dysfunction, including male impotence, can occur in Parkinson's disease. It is not universal. Sometimes anti-parkinson medications exacerbate this problem, while sexual function may actually improve in other instances when medicines are taken.

Episodes of uncontrolled sweating rarely occur in Parkinson's disease and may be related more directly to the medications as opposed to the illness itself. Skin changes are quite common in Parkinson's disease. These usually take the form of a chafing rash over the eyebrows, forehead, and scalp (dandruff). In males this can also extend across the beard area. Some prescription creams and ointments can help this problem. Also some of the dandruff shampoos can be useful to treat the scalp rash.

This type of skin change in Parkinson's disease is typically called "seborhheic dermatitis".

Loss of sense of smell is commonly reported by Parkinson's disease patients. Decrease in sense of smell is actually quite common with aging in general. Studies, however, have clearly demonstrated that Parkinson patients have an overall lowered sense of smell (olfaction) as compared to individuals of similar ages. The reason for changes in olfaction is not completely, understood.

Similarly, visual changes in Parkinson's patients are quite common. As is the case with loss of sense of smell, visual changes are common in aging in general. Investigations into visual changes in Parkinson's patients have revealed a decrease in contrast sensitivity. This means that an individual may have difficulty distinguishing shades of a similar color or a similar background. This visual disturbance is usually quite subtle and does not actually result in true visual impairment such as can be detected by a standard eye chart examination.

In addition to this change in contrast sensitivity, many patients with Parkinson's disease will complain of blurred vision which may, in some instances, be due to their medications. Some medicines for Parkinson's symptoms change the ability of the pupil (the black center of the eye) to react properly to light. This type of medication-induced change does not result in permanent damage to the eye and will usually lessen if the medication dose is reduced or if the drug is discontinued.

Drooling or excess salivation is also common in Parkinson's disease. In fact, drooling at night which results in dampening of the pillow is often a first symptom in Parkinson patients. Part of the excess accumulation of saliva in the mouth is probably related to the fact that Parkinson patients swallow less often and less completely. In addition, the nature and amount of saliva produced in Parkinson's disease may change. Medicines for Parkinson's disease tend to reduce drooling by drying the mouth; however, excessive mouth dryness can be more disturbing for some individuals.

Joint aches and pains and muscle cramps frequently occur in Parkinson's disease. These may be due to muscle rigidity as described in the previous section. Sometimes this may take the form of a sustained muscle cramp called dystonia. In addition, it is probable that arthritic joint problems are worsened by the decrease in mobility of Parkinson's disease. Sometimes, arthritis pain medications or anti-muscle spasm medications are helpful for these problems.

Many patients complain of a general sense of fatigue or drowsiness during the daytime. Medicines may worsen this problem. Some practical solutions can include obtaining a good nighttime sleep, scheduling a short afternoon nap, carefully planned daytime activities, and mild physical exercise in the afternoons.

A variety of psychological or psychiatric problems can occur in Parkinson's disease. Some of these are related to the illness itself while others are related directly to the medications used to treat Parkinson's disease. For example, depression and anxiety are very common in Parkinson's disease regardless of the use of medications. The frequency and level of depression does not seem to be related to the severity of Parkinson's disease itself. An individual with very mild Parkinson symptoms such as tremor or slowness in movement may have depression. Sometimes, medications are useful in treating depression. Depression will sometimes remit without the need for medications or other treatments. Severe depression and suicide are not common in Parkinson's disease.

Anxiety or restlessness in Parkinson's disease can be very difficult to tolerate or treat. Some of the anti-parkinson medications such as levodopa can actually make anxiety worse. It can be helpful to obtain a psychiatric consultation in such instances so that medications can be more properly managed.

Virtually all of the anti-parkinson medications can cause hallucinations. These usually take the form of visual hallucinations such as "seeing small people at the bedside" during the night. One obvious solution to medication-induced hallucinations is to reduce the dosing of the drug or eliminate it altogether. However, this frequently is done at the risk of worsening underlying symptoms of Parkinson's disease, such as tremor and slowness in movement. Sometimes it is necessary to add additional anti-hallucination medication to help manage this problem. Examples of anti-hallucination medications include Clozapine and Resperidone. The use of these types of medications in Parkinson's disease requires close medical supervision.

Dementia can also occur in Parkinson's disease. It is frequently confused with Alzheimer's Disease in such situations. Dementia refers to slowness in thinking and poor memory and judgment. Dementia does not occur in all Parkinson patients and is most often only a late complication of the illness. The dementia of Parkinson's disease is poorly understood and there are no effective treatments to prevent or correct it.

# Is It Really Parkinson's Disease?

Because there is no single diagnostic test to confirm the diagnosis of Parkinson's disease, it is possible to have this condition confused with other illnesses. Parkinson's disease is most often confused with essential tremor.

Essential tremor is the most common tremor disorder, probably affecting about 2 to 3 million Americans. It causes tremor alone. The tremor frequently affects the hands and arms when they are outstretched. In addition, essential tremor can cause shaking of the head and voice.

Essential tremor often runs in a family and, in these instances, it is sometimes referred to as "familial tremor". Essential tremor does not respond to anti-parkinson drugs and this can help distinguish this diagnosis.

Similarly, there are a host of rarer neurological conditions which can mimic Parkinson's disease. ometimes these other ailments are lumped together under the title of "Parkinson-plus syndromes". Progressive supranuclear palsy and Shy-Drager syndrome are examples of these Parkinson-plus ailments.

Parkinson-plus syndromes can be easily confused with typical Parkinson's disease early in the course of the illness. With the passage of time, however, it usually becomes clear that other parts of the nervous system are involved in the illness and this makes a diagnosis of Parkinson's disease less likely. For example, the ability to move the eyes becomes quite limited in progressive supranuclear palsy. This type of symptom or finding on examintation can help the doctor distinguish typical Parkinson's disease from a Parkinson-plus syndrome. In addition, levodopa provides little or no relief of symptoms in these cases. Because these cases of Parkinson-plus syndromes are much rarer than Parkinson' disease, very little is understood about them. Uniformly effective medications are lacking.

# OK, I Have Parkinson's. Now What Happens?

There is much to learn. Your learning about Parkinson's will come from reading, from your physician, and very importantly, from the experiences of other patients. Both the patients and their caregivers have learned a number of skills, tricks, and "work-arounds" for dealing with the disease. We encourage you to join a support group and learn from fellow patients.

There are many other publications available that describe the treatment of Parkinson's. Again, you may contact us for additional information but, in brief, you should be aware of the following:

- You'll probably be given medication for symptoms
- You'll be monitored by scheduled visits with your doctor
- · You should start a program of regular stretching and exercise
- You may need physical therapy to regain strength and flexibility
- You may need speech therapy to strengthen your voice

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