

## TREMORS AND SHAKES

### UNDERSTANDING PARKINSON'S DISEASE

As people age, there are a number of changes that occur or conditions that evolve that are often related to aging or are presumed to be inevitable changes caused by aging. If a person is having trouble using an arm or experience changes in the way they walk, they may attribute this to arthritis. If they are a bit more stooped over or take longer to move and do things they may feel this is related to 'slowing' with old age. Challenges with falls or balance may be attributed to decreased physical activity and strength. However, these occurrences may also be early symptoms of Parkinson's disease.

Nearly 1 million people in the US have Parkinson's disease and approximately 60,000 new cases are diagnosed each year. Most people who are diagnosed with Parkinson's disease are over 65 years of age though some people are diagnosed at younger ages, with about 5% to 10% of those with younger onset Parkinson's diagnosed under the age of 40 according to the National Parkinson's Foundation.

Parkinson's disease was first identified in the early 1800s by Dr. James Parkinson, a British physician. Parkinson's disease is a progressive disorder that is related to a reduction of and/or damage to dopamine producing brain cells. Dopamine is a chemical essential to a number of brain functions, including the coordinated and smooth movement of the body. When there is a significant reduction in dopamine, the muscular movement becomes uncoordinated and slowed, shaking or tremors occur, postural instability or balance is affected and the body can become rigid.

The symptoms of Parkinson's disease tend to be subtle and come on gradually with a person noticing a tremor or perhaps a change in their ability to perform a task as the first signs. They may notice their movement is slower or it takes longer for them to accomplish a task. Early on, these changes are more evident on one side of the body but eventually progress to affect the whole body.

#### DIAGNOSING PARKINSON'S DISEASE

Diagnosis of Parkinson's is done largely on the basis of the reported symptoms, on ruling out other potential causes of the symptoms and on evaluating the response of the person's symptoms when treated with medication that mimics dopamine. Essential to confirming the diagnosis of Parkinson's disease is a consideration of a person's age, a complete history, thorough assessment and comprehensive neurologic examination. In addition the physician may order laboratory blood tests, a computed tomography scan (CT scan) and/or magnetic resonance imaging (MRI) to rule out other possible disorders.

#### The primary symptoms of Parkinson's disease include:

- **Resting tremors** of the hands, arms, legs, face and jaw.
- **Stiffness** or rigidity in the body's trunk and limbs.
- **Balance impairment** and difficulty with coordination.
- **Slowness of movement** also called bradykinesia.

#### Parkinsonism?

Parkinsonism is a term used to describe the complex of primary symptoms listed above. Periodically there are people who have Parkinsonism without having Parkinson's disease. Some of the causes of Parkinsonism which is not Parkinson's disease can be related to circulatory changes in the brain or to medication side effects. Discontinuing the medications can sometimes resolve the symptoms.

Parkinson's disease is a progressive condition meaning it will get worse over time. This often means that the symptoms a person has tried to hide or minimize become harder to do so. The person may develop more symptoms than they originally had or develop them on both sides of their body rather than just one. As symptoms become more apparent so do the challenges associated with activities of daily living (ADLs) and the risk for complications related to Parkinson's disease.

Additional symptoms or associated problems might progress to include:

- Difficulty swallowing or chewing
- Difficulty speaking
- A shuffled gait and difficulty walking
- "Freezing" episodes
- Thinking and memory problems
- Positional blood pressure problems
- Depression
- A blank stare or fixed facial expression
- Urinary problems
- Constipation
- Skin problems
- Sleep disturbances

Additional complications related to Parkinson's disease include:

- Falls and fracture
- Pneumonia
- Weight loss
- Dementia
- Reduced ability or inability to perform activities of daily living

## TREATMENT FOR PARKINSON'S DISEASE

There is no cure for Parkinson's disease but there are treatments available to help manage the symptoms, to minimize complications and to enhance quality of life. Treatment options include medications, exercise and physical therapy, nutritional support and complimentary therapies.

### Medications

There are a number of types of medications used to treat Parkinson's disease, as each individual's symptoms vary over time, treatments for individuals will vary over time as well. Medications may be added or removed, increased or decreased in dosage until the right balance is found for each person.

- **Anticholinergic** medications are used to treat tremors and rigidity. Anticholinergics are the oldest drugs used to treat Parkinson's; they produce side effects that are risky for elders in particular like confusion as well as less risky but bothersome side effects like dry mouth and constipation.
- **Levodopa** is converted into dopamine and is the most well known medication currently used to treat Parkinson's disease. It is given in combination form with another medication (Carbidopa) an enzyme that protects Levodopa until it reaches the brain. Levodopa is effective in treating the tremors, stiffness and rigidity associated with Parkinson's disease.
- **Dopamine** agonists are used to activate dopamine receptors in the brain, by imitating dopamine, they have value in treating the symptoms with less frequent motor fluctuations than Levodopa can have but dopamine agonists can have additional side effects.

- **Selegiline** is an MAO-B inhibitor, this medication works by blocking an enzyme that breaks down dopamine thus allowing it to remain active in the brain to help improve the symptoms associated with Parkinson's disease.
- **Amantadine** is an antiviral drug that was found to have positive effects on tremor, fatigue and bradykinesia (slowing) associated with early Parkinson's disease. It may be given with Levodopa and/or dopamine agonists or given alone.

### Medication Side Effects

As with all medications, side effects can be problematic and especially so with elders. It is essential to understand what possible side effects are, when to call the physician and how to use preventative measures to minimize troubling side effects. The most common side effects of drugs used to treat Parkinson's include: Nausea, vomiting, dry mouth, confusion, drowsiness, hallucinations, dizziness and insomnia.

### Rehabilitative Therapy, exercise and Complimentary Therapies

- **Physical therapy and exercise** help the person with Parkinson's disease by strengthening the body, aiding in balance, increasing range of motion and improving gait and the ability to walk.
- **Speech therapy** to aid swallowing and speech can help reduce difficulties with choking and minimize aspiration pneumonia.
- **Occupational therapy** can enhance a person's ability to function as well as possible for as long as possible, can aid in identifying methods to make performing activities of daily living possible and recommend beneficial equipment.
- **Massage** can loosen tight and rigid muscles and improve comfort.
- **Nutritional therapy** can aid by providing interventions to help maintain optimal weight, hydration and nutritional balance and thereby promote optimal functioning.

- Exercise like yoga and Tai Chi can promote improved balance, strength and flexibility.

### Surgery

There are a number of surgical interventions that may be considered for certain individuals with Parkinson's disease. Each of these must be considered on an individual basis and some procedures are still considered experimental. No surgical procedures are able to offer a guaranteed result but some are effective in minimizing symptoms for some individuals. Surgical procedures generally aim to inactivate or destroy areas of the brain that produce problematic symptoms.

- **Deep Brain Stimulation (DBS)** - implanted electrode in the brain deactivates a problematic portion of the brain that creates uncontrolled movements.
- **Ablation**—similar to DBS but permanent destruction of a portion of the brain where uncontrolled movement originates.
- **Pallidotomy**—a procedure done with the person awake during surgery to help identify the problematic section of the brain, a tiny probe is used to destroy minute areas to stop Parkinson's symptoms.

### Education and Support Groups

Education and support groups provide valuable information about Parkinson's disease, about living with Parkinson's and about where to find answers about Parkinson's. A number of Parkinson's specialty clinics provide specialized care for those with Parkinson's disease and can work with primary physicians and other specialists to develop individualized plans of care.

## MATRIX CASE HISTORY

Mr. Sampson was diagnosed with Parkinson's disease 8 years earlier. His diagnosis came about when he had visited his primary physician after he experienced increasing difficulty with dexterity and a number of falls that he felt were related to his being "off kilter" and "off balance." His physician did a complete physical exam and ordered additional tests that subsequently resulted in a Parkinson's disease diagnosis. He continued to live with his wife and overall they managed for quite some time, learning about Parkinson's disease and making adjustments to their lives to manage with the new condition. Over time however, Mr. Sampson had more and more symptoms and required ever increasing assistance from his wife. When Mr. Sampson began to fall more frequently and when he was losing weight and his wife was having trouble managing at home they called Matrix for assistance.

A Matrix Care Manager conducted a comprehensive assessment to evaluate Mr. Sampson's current situation including his health,

medications, usual daily routine, cognitive assessment and home safety. Together with his family including his wife and children, a plan for additional care in the home was developed. In addition, the Matrix Care Manager worked with his family to enhance the home's safety including the removal of tripping hazards, replacing armless chairs with stable armed chairs and installing gates at the top and bottom of the stairs to prevent Mr. Sampson from using the stairs without assistance. The Care Manager provided the Sampsons with recommendations to area neurologists specializing in Parkinson's care.

Mr. Sampson's weight was monitored regularly as he was beginning to have problems eating and choking had become more frequent so his dietary intake diminished. Modifications to his diet were made to provide a variety of nutritional foods in textures he could swallow more easily. Adaptive plates and silverware were obtained which allowed Mr. Sampson to continue to feed himself which

further enhanced his dignity and self-esteem.

The Care Manager assisted Mr. Sampson to enroll in a twice a week exercise program at the local Parkinson's Center and he now receives in home physical therapy twice a week to aid in fall prevention and improve balance and walking ability. The Care Manager coached his extended family including grandchildren in setting up a rotating visitation schedule which benefited both Mr. and Mrs. Sampson as they would know when guests were coming and the family knew how to visit regularly without over taxing Mr. and Mrs. Sampson. This provided Mrs. Sampson with much needed respite and increased the socialization Mr. Sampson had been longing for as he didn't get out of his home as much as he was used to doing in prior years. The Care Manager assisted Mr. Sampson and his family to update and finalize long-term plans related to Mr. Sampson's preferences for future are options.

## HOW MATRIX CAN HELP

Matrix Home Health Care Specialists has three ways to help seniors managed Parkinson's disease and other chronic illnesses.

- Registered Nurse Care Managers help each client identify specific issues of concern and develop a plan to meet each need and resolve each concern. They provide health advocacy for clients and a back-up system for families who live at a distance. They can help connect clients to needed services and resources. Matrix's goal is to help each client remain independent and enjoy the best possible quality of life.
- Home Care Providers that include licensed practical Nurses (LPNs) and home health aides/certified nursing assistants (HHA/CNAs) provide hands-on help with personal needs and homemaking tasks and they can provide respite for family caregivers. They are available from 4 to 24 hours daily, seven days a week through our Class A comprehensive home health care agency.
- On call Registered Nurses are available evenings, weekends, and holidays. They will assist with resolving any concerns that arise and will visit clients after business hours if needed.

For a confidential, complimentary discussion of your senior's situation, call 952-525-0505 or 800-560-0961