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Parkinson's disease.

# A quarterly newsletter dedicated to awareness about the latest research, resources, advances and treatments for

# **WHAT IS PARKINSONISM?**

arkinsonism is a condition that occurs when a person has symptoms and brain dysfunction commonly associated with Parkinson's disease but also has other symptoms related to an additional condition or cause.

A person who has Parkinsonism will also have another disorder that causes additional ranging from symptoms, neurological dementia to the inability to look up and down.

Parkinson's disease itself refers to dysfunction and cell death of the portion of the brain that produces dopamine. Dopamine is a neurotransmitter — a chemical that transmits signals between brain and nerve cells. It is partially responsible for making controlled movements in the body.

In this article, we take a look at the symptoms of Parkinsonism, how the disease is diagnosed, and what can be done to treat it.

### Fast facts on Parkinsonism:

- Doctors call this disease Parkinsonism plus or atypical Parkinsonism.
- When a person has Parkinson's disease, their movements are significantly affected.
- In the disease's later stages, a person will have difficulty walking and have very stiff, spastic muscles.
- Treatment will aim to reduce Parkinson's symptoms while also treating accompanying disorder.

### **Symptoms**

A person with Parkinsonism usually starts developing symptoms at anywhere from age 50 to 80, according to the University of Texas Southwestern Medical Center.

Parkinson's disease can cause varying and progressive symptoms throughout its course. Some of the most common symptoms associated with the disease include:

- difficulty showing facial expressions
- muscle stiffness
- slowed, affected movements
- speech changes
- tremor, especially of one hand

A person with Parkinsonism may have some, but not all, of the symptoms listed above. This is because they also have an additional disorder that affects the brain's functioning.

For example, people with Parkinsonism often do not have the hand tremor that affects many people with Parkinson's disease.

Other symptoms associated with Parkinsonism include:

- dementia
- issues with the autonomic nervous system, such as problems with controlled movements or spasms
- early problems with balance
- rapid onset and progression of symptoms

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### **Featured Articles** How to Make Your Home Safe for In-Home Medical Care ...... Pages 4 & 5

Each underlying cause of Parkinsonism, such as dementia with Lewy bodies, also has its own unique set of symptoms.

### Causes

Parkinsonism can be caused by Parkinson's disease itself as well as another underlying condition.

Other causes associated with Parkinsonism include:

- Corticobasal degeneration: This condition causes dementia as well as affected movements, usually on one side. A person may also be unable to make controlled muscle movements.
- Dementia with Lewy bodies: This condition causes changes in overall alertness as well as visual hallucinations. This condition is the second most common cause of dementia after Alzheimer's disease, according to Johns Hopkins Medicine.
- Multiple system atrophy: This condition affects coordination and autonomic dysfunction, including bowel and bladder incontinence.
- Progressive supranuclear palsy: This condition causes dementia, frequent backward falls, and problems moving the eyes up and down in addition to Parkinson's disease symptoms.

The conditions above are the four most common causes of Parkinsonism, according to University of Texas South western Medical Center. The number of people with these conditions is about one-fourth of the amount of people who have Parkinson's disease itself.

Another, less common condition called vascular Parkinsonism also exists. This condition causes multiple, small strokes that can affect a person's balance, walking, and memory.

Parkinsonism is also sometimes the result of taking certain medications. Doctors call this condition drug-induced Parkinsonism. Examples of drugs that could cause it include aripiprazole (Abilify), haloperidol (Haldol), and metoclopramide (Reglan).

Ideally, if a person has drug-induced Parkinsonism, they can slowly reduce the dosages of these medicines. However, that may not always be possible, and a person should not stop taking a medication without their doctor's approval.

### **How do Doctors Diagnose Parkinsonism?**

No single test exists for doctors to diagnose Parkinsonism.

A doctor will start by taking a person's health history and review their current symptoms. They will ask for a medication list to determine if any medicines could be causing the symptoms.

A doctor will likely also order blood testing to check for underlying potential causes, such as thyroid or liver problems. A doctor will also order imaging scans to examine the brain and body for other causes, such as a brain tumor.

Doctors can perform a test that tracks the movement of dopamine in the brain. This is known as the DaT-SPECT test.

The test uses radioactive markers designed to track dopamine in the brain. This allows a doctor to watch the release of dopamine in a person's brain and identify the areas of the brain that do or do not receive it.

Because Parkinsonism does not respond to typical treatments and can have a variety of symptoms, doctors can have difficulty coming to a quick diagnosis. It may take time for doctors to rule out other conditions and begin to make treatment recommendations.

### **Treatments**

One of the most commonly prescribed medications to treat Parkinson's disease is levodopa. This medication is related to dopamine and can increase the amount of dopamine available in the brain.

However, people with Parkinsonism not only have problems producing dopamine, but they also have damaged or destroyed cells that cannot respond to dopamine. As a result, levodopa may not work as well to reduce their symptoms.

Doctors can find Parkinsonism challenging to treat because the symptoms of the condition do not always respond as well or at all to medications that boost dopamine.

As a result, treatments for Parkinsonism depend upon the "plus" disease that a person has. For example, if a person has corticobasal degeneration and related muscle spasms, a doctor may prescribe antidepressants and botulinum toxin A (BOTOX) injections.

Treatments for Parkinsonism usually aim to help reduce a person's symptoms whenever possible to help them maintain independence. Doctors often recommend physical and occupational therapy because they can help a person keep their muscles strong and improve balance.

### **Outlook**

The outlook for Parkinsonism depends upon the type of Parkinsonism a person has and how quickly it affects them.

According to the Parkinson's Disease Clinic and Research Center at the University of California, San Francisco, the survival rate for a person who has multiple system atrophy is about 6 years from clinical diagnosis. People with other types of Parkinsonism may have longer or shorter life expectancies.

The onset and symptom progression of Parkinsonism tend to be much faster than that of Parkinson's disease alone. However, researchers are working every day to find treatments for Parkinson's disease and Parkinsonism in hopes of improving quality of life and symptoms reduction.

Article link: Parkinsonism: Symptoms, treatment, and diagnosis (medicalnewstoday.com)

Atypical Parkinsonism (n.d.): https://www.bcm. edu/healthcare/care-centers/parkinsons/conditions/ atypical-parkinsonism

Atypical Parkinsonism. (n.d.): https://www.hopkinsmedicine.org/neurology\_neurosurgery/centers\_clinics/movement\_disorders/conditions/atypical\_parkinsons.html%20

Atypical Parkinsonism (Parkinson's plus). (n.d.): http://www.pacificneuroscienceinstitute.org/movement-disorders/conditions/atypical-parkinsonism/

Parkinsonism. (n.d.): http://www.utswmedicine.org/brain-spine/programs/parkinsonism/

Parkinson's disease vs. Parkinsonism. (n.d.): http://www.parkinson.org/sites/default/files/Parkinsonism.pdf

Recognizing other causes of Parkinsonism. (n.d.): http://pdcenter.neurology.ucsf.edu/professionals-guide/recognizing-other-causes-parkinsonism



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Home safety should be a priority for everyone but it is a must for those receiving in-home medical care due to disease, disability or the normal aging process. There will never be a better time to do a room-by-room safety check and make the necessary changes to make your home as safe and comfortable as possible.

### **FIRE SAFETY & PRECAUTIONS**

- Smoke Detectors should be strategically installed throughout your home. Kitchen area for sure. Remember to check the batteries at least twice a year.
- **Carbon Monoxide Detector** may be appropriate as well. Ask your local fire department if you should have one in your home.
- Escape Plan in the event of a fire should be discussed and practiced with all family members. Predetermine the fastest and easiest way to exit your home.
- Oxygen Hazards need to be reviewed and adhered to for those using oxygen in the home. Smoking near an oxygen source is the biggest danger. Please review additional precautions with your oxygen provider.

**Electrical Safety –** If you are using electrical medical equipment, please take time to read the electrical safety section in the instruction manual.

- Plug all medical equipment into a properly grounded electrical outlet. When using a three-prong adapter, make sure it is properly installed.
- Do not use cheap extension cords. Use only quality outlet "extenders" or "power strips" with internal circuit breakers.

**Bathroom Safety -** Because of smooth slippery surfaces the bathroom can be very dangerous especially for those who are unsteady on their feet.

- Avoid loose throw rugs. Use only non-slip rugs to prevent slipping on wet floors.
- Install grab bars on shower walls and use non-slip footing strips or a rubber suction mat in your shower or tub.
- Use a shower chair or bench so you can sit safely rather than standing to shower.
- Utilize a raised toilet seat with arm supports for ease getting on & off the commode.
- If you have trouble sensing hot and cold, lower the temperature of your water heater to avoid accidental scalding.

**Bedroom Safety –** Make a safe, uncluttered and comfortable bedroom since most of recuperation and home therapy occurs in the bedroom.

- Hospital Bed These beds raise and lower the head and foot of the bed so you can sit up, recline and adjust your knees for added comfort. The ability to raise or lower the entire bed makes bed baths easier and transfer from bed to chair less taxing. A variety of tables and supports are available so you can eat, exercise and read in bed.
- Bed Rails Reduce your risk of falling out of bed when you roll from side to side.
- **Bedside Commode** If you have difficulty walking, a bedside commode eliminates the need to walk to the bathroom during the night.
- Night Lights Install night lights to help orient yourself and help find your way in the dark.
- IV Pole If using an IV pole, make sure that all furniture, loose carpets and electrical cords are out of the way to avoid falling when walking around your home.

# HOW TO MAKE YOUR HOME SAFE FOR IN-HOME MEDICAL CARE Continued from page 4

**Kitchen Safety –** Your kitchen should be conveniently set up so you can easily reach common items that you use throughout the day.

- Place small appliances and utensils on the counter where you can easily reach them.
- Keep a stool near the kitchen counter work area if you tire easily while standing.
- Be careful lifting pots & pans as they may be not only hot but heavy. Use padded mitts to firmly grasp pots and pans on both sides to avoid burns.
- Utilize convenient gadgets if need be.
  - Electric Can Opener
  - Bottle & Jar Openers
  - Large Handled Utensils
- When working at your stove be careful that IV tubing or oxygen tubing does not hang over the heat as they can be flammable.

**Additional Home Safety** – If you are using assistive devices for walking around your home, here are some key points.

- Install temporary or permanent guardrails on stairs to give you additional support.
- If you are using a walker, make sure that furniture and walkways are arranged to give you enough free space to get around.
- If you are using a walker or wheelchair, you may need a ramp for getting in and out of your home.
   Ramps can be purchased ready-made or custom built for you.

There's no place like home so make every effort to make your home safe, convenient and comfortable for you and your family. Hope these easy and effective tips are helpful to you. Stay safe!



# WHAT IS THE BEST PARKINSON'S DIET?

Parkinson's disease affects nearly 1 million Americans. Each year, another 60,000 people are diagnosed with the condition.

Symptoms vary from person to person but commonly include muscle spasms, tremors, and muscle soreness. The causes and triggers that activate Parkinson's are still being studied.

This article will explore how diet can affect individuals with Parkinson's as well as which foods may help or worsen symptoms.

### THE ROLE OF DIET IN PARKINSON'S

Levodopa (Sinemet) and bromocriptine (Parlodel) are common drugs that many people with Parkinson's take to manage symptoms. However, no treatment will fully stop symptoms.

Since there's no cure for Parkinson's, and the drugs prescribed to manage symptoms sometimes have harsh side effects, some people may be interested in alternative remedies.

While diet won't cure Parkinson's, early research suggests that certain dietary changes may help alleviate symptoms for some people.

Because this condition is closely connected to a lack of dopamine cells in your body, researchers are looking for ways to increase dopamine naturally through your diet.

Plus, secondary symptoms of Parkinson's, such as dementia and confusion, may improve through lifestyle changes like diet and exercise.

### WHAT IS THE BEST PARKINSON'S DIET? Continued from page 5

Foods high in antioxidants may also help cut down on oxidative stress in your brain, which may be responsible for some of the mental decline seen in Parkinson's.

Additionally, you may be able to relieve constipation — another potential symptom — with fiber supplements and probiotics, although research is mixed.

Finally, taking magnesium may relieve muscle cramps that can occur in Parkinson's, though supporting research is lacking. Still, low levels of this mineral are thought to contribute to the development of Parkinson's, so magnesium remains important.

Overall, further research is necessary.

### **Summary**

While diet won't cure Parkinson's, certain dietary changes — such as consuming more antioxidants, fiber, and magnesium — may help improve symptoms. Exercise may be helpful as well.

### FOODS THAT MAY HELP PARKINSON'S

Some research focuses on proteins, flavonoids, and gut bacteria for improving Parkinson's symptoms, but the research is ongoing and still inconclusive.

More research has shown that diets high in antioxidants may provide brain-protective benefits and slow the progression of the disease in older adults.

### 1)Antioxidants

Antioxidants protect against oxidative stress, which is an imbalance of antioxidants and unstable compounds called free radicals that occurs in Parkinson's disease.

The following foods contain large amounts of antioxidants:

- Nuts: walnuts, Brazil nuts, pecans, and pistachios
- Berries: blueberries, blackberries, goji berries, cranberries, and elderberries
- Nightshade vegetables: tomatoes, peppers, and eggplant
- Leafy green vegetables: spinach and kale

Eating a plant-based diet high in these types of foods may provide the highest antioxidant intake.

Researchers are also exploring an antioxidant treatment for Parkinson's, though studies remain inconclusive.

### 2)Fava beans

Some people eat fava beans for Parkinson's because they contain levodopa — the same compound used in some Parkinson's drugs. However, no definitive evidence shows that these beans help reduce symptoms.

Additionally, because you don't know how much levodopa you're getting when you eat fava beans, you shouldn't use them as a substitute for prescription treatments.

### 3)Omega-3 foods

Omega-3 fatty acids, which are types of healthy fats, may help improve brain function in those with Parkinson's. These fats are found in foods like:

- salmon
- soy beans
- halibut
- flaxseed
- oysters
- kidney beans

Some research also suggests that the Mediterranean diet, which tends to be high in antioxidants and omega-3s, protects against dementia in Parkinson's disease.

### 4)Certain nutrient-dense foods

Malnutrition has been found to be a risk factor for mental decline. Additionally, individuals with Parkinson's disease are more likely to suffer from malnutrition.

Here are some food sources of nutrients that many people with Parkinson's are deficient in:

- Iron: spinach, beef, tofu, and fortified breakfast cereals
- Vitamin B1: pork, beans, lentils, and peas
- Zinc: whole grains, red meat, oysters, and chicken
- Vitamin D: salmon, tuna fish, fortified dairy products, and cod liver oil
- Calcium: dairy products, green leafy veggies, and fortified soy products

### **Summary**

Eating more foods rich in antioxidants and omega-3s, as well as correcting any nutrient deficiencies, may help alleviate some Parkinson's symptoms. Although many people also eat fava beans, there's no evidence for their efficacy.

### FOODS TO AVOID WITH PARKINSON'S

You may want to avoid or limit your intake of certain foods if you have Parkinson's.

### 1)Foods high in saturated fat

Although the specific role of saturated fat in Parkinson's is still being studied, research suggests that a high dietary fat intake may increase your risk of this disease.

Generally speaking, diets high in saturated fat have been linked to chronic conditions like heart disease. As such, you may wish to keep these foods in moderation.

Some foods high in saturate fat include:

- beef
- cheese
- lard
- butter
- palm oil
- some baked and fried foods

Conversely, a very small study notes that the keto diet — which is high in fat — is beneficial for some people with Parkinson's. However, a low-fat diet also showed benefits. Overall, more research is needed.

### 2)Foods that are hard to chew

Another Parkinson's symptom is difficulty chewing and swallowing. In fact, it's estimated that 80% of people with this condition experience difficulty swallowing as the disease progresses.

Choosing foods that are easy to chew and swallow may be important, as may working with a speech language therapist.

### 3)Processed foods

Lastly, it's recommended to limit or avoid processed foods, such as canned foods, fried foods and regular and diet sodas, as these have been linked to a more rapid progression of Parkinson's.

Processed foods may also impair gut health, which may affect symptom severity.

### **Summary**

Individuals with Parkinson's may need to avoid or limit processed foods and foods high in saturated fats, as these may exacerbate symptoms.

# LIFESTYLE TIPS FOR PEOPLE WITH PARKINSON'S

Here are a few basic lifestyle tips that may help ease Parkinson's symptoms:

- **Drink plenty of water.** Staying hydrated is especially important for people with Parkinson's, who often don't experience typical thirst sensations. Aim to drink 6–8 full glasses (1.2–1.6 liters) of water each day to feel your best.
- **Spend time outside.** Vitamin D has been demonstrated to protect against Parkinson's, so getting fresh air and sunshine may ease your symptoms.
- **Get moving.** Various kinds of exercise and physical therapy may improve your abilities and slow the progression of Parkinson's.
- Consider supplements. Talk to your doctor about supplements and other therapies that may be safe for you to try.

### **Summary**

Healthy lifestyle habits, such as staying hydrated, getting outside, and keeping active, may help relieve Parkinson's symptoms.

### THE BOTTOM LINE

Insufficient research is available to recommend a specific diet to treat Parkinson's disease. However, there's reason to believe that a healthy diet — alongside regular exercise — may help improve symptoms.

Keep in mind that certain foods and supplements may interfere with prescription drugs for this disease, so make sure you consult your doctor before changing your treatment routine.

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