Madison Neurology LLC: Compiled for Educational Purposes. Not for Clinical Use.

MADISON NEUROLOGY LLC

608 403 0000

Neurology Care 7 days a Week. Because Your Brain Matters.

Parkinson's Disease

Patient education guide · Neurodegenerative & Memory · Madison Neurology LLC

What is it?

Parkinson's disease is a progressive movement disorder caused by the loss of dopamine-producing cells in a brain region called the substantia nigra. Its hallmarks are tremor at rest, slowness of movement, stiffness, and balance problems — but it also affects sleep, mood, smell, digestion, and thinking.

How does it happen?

The exact cause is unknown in most people. It involves abnormal clumping of a protein called alpha-synuclein. A small minority of cases are genetic (e.g., LRRK2, GBA, PARK genes). Environmental factors such as pesticide exposure and head injury raise risk; caffeine and exercise are associated with lower risk.

Common symptoms

- Resting tremor, usually starting on one side (often a hand 'pill-rolling' tremor)
- Slowness of movement (bradykinesia) and smaller handwriting
- Muscle stiffness and reduced arm swing when walking
- Balance problems and falls (usually later)
- Non-motor signs: loss of smell, constipation, REM sleep behavior disorder, depression, soft voice

How is it diagnosed?

There is no single test; diagnosis is clinical, based on the examination and a clear improvement with dopamine medication. MRI rules out other causes, and a DaTscan can support the diagnosis in unclear cases.

How is it treated?

Levodopa remains the most effective medication, joined by dopamine agonists, MAO-B inhibitors, and others that smooth out symptoms. Deep brain stimulation (DBS) or focused ultrasound can help when medications fluctuate. Regular vigorous exercise is one of the most powerful disease-slowing strategies. Physical, occupational, and speech therapy (including LSVT programs) maintain function.

What does the future hold?

Parkinson's progresses slowly, over many years to decades, and most people live a near-normal lifespan. Modern treatment keeps symptoms controlled for a long time; the focus is on staying active, treating non-motor symptoms, and adapting over time. Many patients work, travel, and exercise for years after diagnosis.

Questions patients commonly ask

Q: Is Parkinson's fatal?

A: Parkinson's itself is not usually the direct cause of death, and life expectancy is near normal; complications like falls and swallowing problems are managed proactively.

Q: Will I end up in a wheelchair?

A: Not necessarily. Many people remain mobile for decades, especially with exercise, good medication management, and therapies.

Q: Is it hereditary?

A: Only about 10-15% of cases have a clear genetic link; most are sporadic, and the risk to children is only slightly above average.

National support groups & resources

- **Parkinson's Foundation (Helpline)** — parkinson.org — 1-800-473-4636
- **The Michael J. Fox Foundation** — michaeljfox.org
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org

(Organization contact details were current at the time of compilation; please verify online.)

Disclaimer — please read

This material is provided by Madison Neurology LLC for general educational purposes only. It is not medical advice, is not a substitute for the independent judgment of a qualified healthcare professional, and does not create a physician-patient relationship. Do not disregard, avoid, or delay seeking professional medical advice, diagnosis, or treatment because of anything in this material. Individual conditions, treatments, and outcomes vary; only your own healthcare team can evaluate your specific situation. If you think you may be experiencing a medical emergency, call 911 or go to the nearest emergency department immediately. To the fullest extent permitted by law, Madison Neurology LLC, its providers, and staff disclaim all liability for any loss, injury, or damage arising from the use of, reliance on, or inability to use this information. Organization contact details are provided as a courtesy, were current at the time of compilation, and may change; Madison Neurology LLC is not responsible for the content of external organizations.