

Neurology Department



Parkinson Disease



National
Neuroscience Institute

SingHealth

Understanding Parkinson Disease

Parkinson Disease (PD) is one of the top four neurological conditions affecting Singaporeans. With an aging population, the number of people diagnosed with PD is set to rise.

PD is caused by a deficiency in neurotransmitters called dopamine, which relays messages between cells. This deficiency affects movement.

Dopamine is produced in a structure of the brain called the substantia nigra (Figure 1).



Figure 1
Substantia nigra,
Dopamine-producing cells

Signs of Parkinson Disease



Uncontrolled shaking of arms/legs



Stiffness in arms/legs/body



Slow movements



Unsteady gait

Other signs include inability to blink or smile and changes in speech and writing.

A detailed check by a neurologist is needed to confirm diagnosis and rule out conditions that may have similar signs.

Risk Factors

The risk of developing PD increases with age. It usually occurs in those aged 60 and above.

Genetic and environmental factors like the use of pesticides may be possible causes.

Living with Parkinson Disease

At present, there is no cure for PD. Medications are used to manage the signs and improve daily function. Treatment is based on the person's age, current medical conditions and the stage of PD.

In advanced stages, Deep Brain Stimulation (DBS) surgery may be advised. A wire is placed in the brain to stimulate it, and a battery pack is placed under the skin near the chest. As DBS is not suitable for all, the medical team will assess the patient first.

At NNI, a multi-disciplinary team of doctors, nurses and allied health professionals (clinical psychologists, dieticians, medical social workers, occupational, speech, physiotherapists, pharmacists) provide coordinated care. For available programmes, speak to your attending doctor.

Support for Parkinson Disease

NNI Parkinson Disease Support Group

The NNI Parkinson Disease Support Group provides a safe environment for patients and caregivers living with Parkinson to share their experiences. Participants will also be updated on ways to manage the disease and advances in research.

For meeting dates, visit www.nni.com.sg.

NNI Community Care Partners Programme (CCPP)

The CCPP equips community care partners providing intermediate and long-term care (ILTC) services, and voluntary welfare organisations with the knowledge and skills to manage the unique needs of PD patients through training workshops and case discussions.

Approach your care team for details on how you may be referred to NNI's community care partners for rehabilitation, nursing and home care services.

For enquiries, write to ccpp@nni.com.sg or visit www.nni.com.sg.

Parkinson Society Singapore (PSS)

The PSS conducts therapeutic programmes and activities to help patients and their caregivers on their journey with PD. These include exercise, dance, singing, art classes and other programmes for people living with Parkinsons.

For more information, contact PSS at **6353 5338** or visit www.parkinson.org.sg.

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