

Single leg stand - This exercise helps to improve standing balance and ability to walk. It also develops steadiness, strength, and confidence. For support, rest your hands on a wall or the back of a chair.

Place your weight on your less dominant leg. Slowly lift your opposite foot from the floor. Hold for 20 seconds. Try to use your arms as little as possible for balance. Lower your foot to the floor. Repeat on the other side.

Wrist curls - Hand exercises help to increase steadiness, reduce tremors, and improve finger and hand dexterity.

For this exercise, use a dumbbell that's 1 to 5kg.

Place your left hand and wrist over the edge of a table with your palm facing up. Hold the weight in your hand. Slowly move your wrist up as far as you can. Hold this position for a few seconds. Do 1 to 2 sets of 12 repetitions. Repeat on the opposite side.

Child's pose (Balasana) - This gentle forward bend relieves mental and physical tiredness and promotes a sense of inner calm. It also loosens up your hips, thighs, and ankles. Plus, it relieves back tightness and discomfort. For extra support, place a cushion under your forehead, torso, or bottom.

Sit back on your heels with your knees together or slightly apart. Hinge at your hips to fold forward. Extend your arms in front of you or rest your arms alongside your body. Place your forehead on the floor or a cushion. Relax deeply, letting go of any tension in your body. Hold this pose for up to 5 minutes.

Warrior II (Virabhadrasana II) - This stamina-building pose improves balance while stretching and strengthening your body. From standing, step your left foot back and turn your toes to the left at a slight angle. Keep your right toes facing forward and open your hips to the side. Raise your arms so they're parallel to the floor, turning your palms down. Bend your right knee until it's behind or above your ankle. Press into both feet, elongate your spine, and feel a line of energy moving from your front to back fingertips. Gaze ahead toward the tip of your middle finger. Hold this position for up to 1 minute. Repeat on the opposite side.

- **Modifications:** Place a chair under your front thigh. Position yourself alongside a wall, leaning into it as needed. Lower your back knee to the floor. Position your feet closer together.

No-contact boxing - This activity improves strength, speed, and agility. It also increases endurance, balance, and hand-eye coordination.

Jab punches - Stand with your feet under your hips, or slightly wider for better balance. Make fists and place them in front of your shoulders with your palms facing forward. Punch your left fist forward, extending your arm fully. Return to the starting position. Repeat on the opposite side. This is one repetition. Do 1 to 2 sets of 20 repetitions.

Combination punches - Stand with your feet under your hips, or slightly wider for better balance. Make fists and place them in front of your shoulders with your palms facing inward. Punch your left fist upward, extending your arm fully. Return to the starting position. Then punch your left fist across your body, extending your arm fully. Return to the starting position. Repeat on the opposite side. This is one repetition. Do 1 to 2 sets of 20 repetitions.

SUMMARY

Much is still unknown about the causes and risk factors of Parkinson's disease, but research is ongoing. It's likely that environmental factors may play a role alongside genetic factors. Being aware of your own risk factors and any potential early symptoms can help you work with a healthcare professional to come up with a plan for diagnosis and treatment. There's hope for new and more effective treatments and therapies to ease symptoms and improve quality of life.



Contact Us



01865 770 380



manager@minihealthhub.co.uk



Building 10.0 mini plant - facing the road



www.minihealthhub.co.uk

SEARCH US AND GIVE US A LIKE



For more information and help with exercises,
please come and speak to me : Danny Kavanagh

HEALTH
HUB

PREHABILITATION HEALTH CONDITIONS PARKINSONS DISEASE

Parkinson's disease is a chronic disorder of the nervous system, which is made up of pathways of cells and neurons that send and receive signals throughout your body. Parkinson's disease is caused by the loss of nerve cells in a part of your brain called the substantia nigra. These cells control the production of the chemical dopamine. Dopamine helps control movement in your body. But when the cells are impaired, less dopamine is produced. This condition isn't fatal, but it can cause severe symptoms that impact everyday movement and mobility. Hallmark symptoms include tremors and trouble with gait and balance. These symptoms develop because the brain's ability to communicate is impaired.

CAUSES OF PARKINSONS DISEASE

• GENETICS

A recent study including 1,676 people with Parkinson's suggested that genes play a role in the development of the condition. An estimated 10 to 15 percent of people with Parkinson's have a family history of the condition. In fact, a number of specific genes have been linked to the development of Parkinson's.

How do genetics factor into Parkinson's in some families -

According to research, one possible way is through the mutation of genes responsible for producing dopamine and certain proteins essential for brain function. Some newer research from 2021 indicates that treatments could potentially be tailored to a person's specific genetic background. However, more research has to first be done on genetic forms of the condition.

• ENVIRONMENT

There's some evidence that your environment can play a role in Parkinson's disease. Exposure to certain chemicals has been suggested as a possible link to the condition. These include:

- Pesticides such as insecticides
- Herbicides and Fungicides

Some research also links consuming excessive manganese, a necessary trace mineral, to an elevated risk of Parkinson's disease. Not everyone exposed to these environmental factors develops Parkinson's, though. Some researchers theorise that a combination of genetics and environmental factors causes Parkinson's.

• LEWY BODIES

Lewy bodies are abnormal clumps of proteins found in the brain stem of people with Parkinson's disease. These clumps contain a protein that cells are unable to break down. They surround cells in the brain and, in the process, interrupt the way the brain functions. Clusters of Lewy bodies cause the brain to degenerate over time. This results in decreased motor coordination in people with Parkinson's disease.

• LOSS OF DOPAMINE

Dopamine is a neurotransmitter chemical that aids in passing messages between different sections of your brain. In people with Parkinson's, the cells that produce dopamine are impaired. Without an adequate supply of dopamine, your brain is unable to properly send and receive messages. This disruption affects the body's ability to coordinate movement and results in trouble with walking and balance.

• AGE AND SEX FACTORS

Aging also plays a role in Parkinson's disease. Advanced age is the most significant risk factor for developing Parkinson's disease, according to recent research. Scientists believe that brain and dopamine function begin to decline as your body ages. This makes a person more susceptible to Parkinson's.

A person's sex can also play a role in Parkinson's. According to research, people assigned male at birth (referred to as "men" in the study) are more susceptible to developing Parkinson's than those assigned female (referred to as "women"). The disease also seems to be more aggressive in males, per a 2020 review. Some researchers, including the authors of a 2020 research paper, are looking into whether sex-specific differences decrease with age.

• Occupations affecting risk

Research suggested that certain occupations may put a person at greater risk for developing Parkinson's. In particular, Parkinson's disease may be more likely among people who have jobs in welding, agriculture, and industrial work. This may be because they're exposed to toxic chemicals. However, study results have been inconsistent. Ultimately, more research needs to be done.

WHAT IS PARKINSONS DISEASE

Parkinson's disease (Parkinsonism) is marked by the presence of certain recognizable symptoms. These include uncontrollable shaking or tremor, lack of coordination, and speaking difficulties. However, symptoms vary and may worsen as the disease progresses. The main symptoms of Parkinson's include:

- Uncontrollable shaking and tremors
- Slowed movement (bradykinesia)
- Balance difficulties and eventual problems standing up
- Stiffness in limbs

Many doctors who diagnose this brain disorder rely on the Hoehn and Yahr rating scale to classify the severity of symptoms. The scale is broken into five stages based on disease progression. The five stages help doctors evaluate how far the disease has advanced.

Stage 1 - Is the mildest form of Parkinson's. At this stage, there may be symptoms, but they're not severe enough to interfere with daily tasks and overall lifestyle. In fact, the symptoms are so minimal at this stage that they're often missed. But family and friends may notice changes in your posture, walk, or facial expressions. A distinct symptom of stage 1 Parkinson's is that tremors and other difficulties in movement are generally exclusive to one side of the body. Prescribed medications can work effectively to minimise and reduce symptoms at this stage.

Stage 2 - Is considered a moderate form of Parkinson's, and the symptoms are much more noticeable than those experienced in stage 1. Stiffness, tremors, and trembling may be more noticeable, and changes in facial expressions can occur.

While muscle stiffness prolongs task completion, stage 2 does not impair balance. Difficulties walking may develop or increase, and the person's posture may start to change. People at this stage feel symptoms on both sides of the body (though one side may only be minimally affected) and sometimes experience speech difficulties. The majority of people with stage 2 Parkinson's can still live alone, though they may find that some tasks take longer to complete. The progression from stage 1 to stage 2 can take months or even years. And there is no way to predict individual progression.

Stage 3 - Is the middle stage in Parkinson's, and it marks a major turning point in the progression of the disease. Many of the symptoms are the same as those in stage 2. However, you're now more likely to experience loss of balance and decreased reflexes. Your movements become slower overall. This is why falls become more common in stage 3. Parkinson's significantly affects daily tasks at this stage, but people are still able to complete them. Medication combined with occupational therapy may help decrease symptoms.

Stage 4 - Independence separates people with stage 3 Parkinson's from those with stage 4. During stage 4, it's possible to stand without assistance. However, movement may require a walker or other type of assistive device. Many people are unable to live alone at this stage of Parkinson's because of significant decreases in movement and reaction times. Living alone at stage 4 or later may make many daily tasks impossible, and it can be dangerous.

Stage 5 - Is the most advanced stage of Parkinson's disease. Advanced stiffness in the legs can also cause freezing upon standing, making it impossible to stand or walk. People in this stage require wheelchairs, and they're often unable to stand on their own without falling. Around-the-clock assistance is required to prevent falls. Up to 50 percent of people at stages 4 and 5 experience confusion, hallucinations, and delusions. Hallucinations occur when you see things that aren't there. Delusions happen when you believe things that aren't true, even when you have been presented with evidence that your belief is wrong. Dementia is also common, affecting between 50 and 80 percent of people with Parkinson's, according to the Alzheimer's Association. Side effects from medications at these later stages can often outweigh the benefits.

EXERCISE AND PARKINSONS DISEASE

Aim to do at least a few minutes of movement each day. Include exercises that improve cardiovascular health, flexibility, and strength. If you change up your exercises every week, your body can learn new ways to move.

There are a few different types of exercise that may be especially helpful to those with Parkinson's, including:

- Physical and occupational therapy
- Yoga
- Aerobics

