- Change your direction: Stepping backwards, sideways, pushing down on the foot before lifting or lifting the toes or bending the knees and then straightening also helps to overcome freezing.
- Shift your attention: Raising arms, clapping hands or shifting weight to the heels is also helpful in some cases
- March with the music: Wearing a portable CD player marching with music and swinging arms, singing a marching song helps to overcome freezing of gait.
- **Count rhythmically:** Count to 3 and then take a high step.
- **Tapping the hips** in a rhythmical pattern and then walking with it helps freezing as well.
- **Medication adjustment**: Ask your physician advice if change in medication is needed.
- Physiotherapist assessment to determine the best type of cane or walker which suits the need of each individual patient.

# HOW CAN I HELP SOMEONE WHO IS HAVING FREEZING EPISODE?

Although it may seem to come as a reflex, if you notice someone who has freezing, pulling on their arm to get them moving is not a good idea because it may push them off balance. Try this instead:

- Join in their walk by walking arm in arm with them. It will get them synched to your rhythm and prevents freezing of gait
- Position your foot in front of their "frozen" foot and have them step over your foot.



### DID YOU KNOW?

The number of Parkinson's patients will double by 2040. Millions of Parkinson's patients around the world are suffering from poverty and...

- Cannot afford to buy their medications
- Cannot afford to purchase a cane, walker, or a wheelchair
- Cannot obtain educational literature about Parkinson's in their language
- Are not able to afford to consult a neurologist and remain undiagnosed and untreated

#### **OUR SERVICES**

World Parkinson's Program is the only organization that provides the following unique services to Parkinson's patients:

- Parkinson's medications to those patients who can't afford to buy them
- Canes, walkers & wheelchairs to prevent falls
- Parkinson's educational brochures in many languages
- Free electronic educational newsletter
- Chapters of World Parkinson's Program in various parts of the world

# JOIN THE FIGHT AGAINST PARKINSON'S

# TO DONATE, VISIT PDPROGRAM.ORG

This information is not a substitute for medical advice. Consult your Physician before applying this information.

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Acknowledgments: Dr. A. Q. RANA Neurologist (Canada)

Frequently asked questions about

# PARKINSON'S DISEASE & FREEZING OF GAIT



ENGLISH - 22



www.pdprogram.org

"Those who fight Parkinson's with knowledge always find solutions"- Dr. Rana Parkinson's disease is a progressive neurodegenerative condition characterized by tremors, slowness of movements, stiffness, and balance problems. In addition, Parkinson's has many non-motor symptoms such as memory or cognitive issues, speech and swallowing problems, depression, and sleep difficulties. It affects almost 10 million individuals around the world.

#### WHAT IS FREEZING OF GAIT?

Freezing of gait is used to describe a phenomenon in which patients recurrently feel that their feet are glued to the floor when trying to walk. Some people may describe as their feet being attached to the floor by some kind of "magnet". It is as if the motor function involved in movement is briefly blocked which most Parkinson patients experience as sudden lack of immobility.

#### WHAT LEADS TO FREEZING OF GAIT?

A complex synchronized action is essential in numerous muscle groups that allows us to maintain posture and balance in order to initiate stepping. As the brain matures, it develops circuits and feedback loops that facilitate balance and ambulation. This helps us to learn to walk without consciously thinking about the multiple individual motions that are required to facilitate movement. The ability to quickly commence walking is thus a function of our body that most of us take for granted.

Parkinson's disease modifies the function of certain parts of brain which are involved in ambulation and other complex motions. Most people with Parkinson's disease have change in their gait with markedly reduced speed and length of each step defined as short shuffling gait that is often observed as disease progresses.

### ARE THERE ANY FACTORS OR SITUATIONS WHERE FREEZING OF GAIT CAN BE TRIGGERED?

There is an increase in the risk of falls in Parkinson's patients due to freezing of gait. The risk of falling also increases if the patients are unable to anticipate the freezing of gait and thus are incapable of requesting help in a timely manner as well as those patients with cognitive impairment and poor self-awareness of their limitations. Freezing of gait may also affect patients' quality of life as those patients who experience problems in ambulating might limit their social interactions and mobility, leading to poor social and physical health. Thus, it is important to prevent or successfully manage episodes of "freezing of gait". Certain situations can trigger freezing of gait in Parkinson's patients. Recognizing them can help Parkinson's patients develop a strategy to overcome this problem or to deal with it more appropriately. A few of the known factors are listed below.

## Environmental triggers:

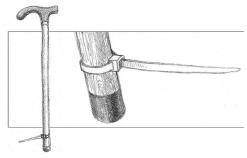
- Performing multiple actions together/Multitasking / Distractions
- Initiating ambulation ("start hesitation")
- Visible obstacles in the path
- Passing through doorways
- While using elevators
- Passing through narrow passages or corridors
- While changing directions or turning quickly
- Crossing through a crowded place

# **Emotional triggers:**

- Feeling of being hurried/ rushed
- Feeling of being alarmed ("startle hesitation")
- Stress/ Anxiety
- Depression

# STRATEGIES TO HELP FREEZING OF GAIT

- Using a cane or walker: a laser pointer cane or walker provides a visual cue to initiate walking, the patient can also imagine stepping on or over the beam
- **Stop moving:** When "freezing" occurs the patient must recognize the problem and come to a complete stop to abort the malfunctioning automatic gait program
- Visualize beyond the hurdle: Patients who "freeze" in a particular place, such as a doorway, should try to visualize the area beyond the obstacle. Freezing tends to resolve once the obstacle is passed
- Avoid multi-tasking: In certain patients multi-tasking or distractions can trigger freezing of gait. Keep distractions to minimal and concentrate on your gait as much as possible
- **Visual cues:** Placing a plastic tie at lower end of the cane which patient can use as a cue to step-over



- Concentrating and imagining white lines on the floor which patient can step on or over also help to overcome freezing.
- **Inverted cane** (turning the cane upside down and trying to step over the handle particularly in a straight edged cane)