

Can smart shoes help improve your walking???



We are recruiting people with Parkinson's disease who experience freezing of gait to take part in a research study.

We are looking for people who,

- Are aged between 40-85 and have received a diagnosis of Idiopathic Parkinson's Disease (PD) confirmed by a neurologist
- Has difficulty when starting to walk, turning, or walking in narrow areas, and may occasionally have episodes where the feet get glued to the ground ("freeze")
- Can walk independently without an assistive device
- Can read, write and understand English
- Do not have any confounding medical (e.g. severe blood pressure abnormalities), neurological (e.g. stroke), musculoskeletal (e.g. recent musculoskeletal injuries, fractures or surgeries), cardiovascular (e.g. recent cardiac surgeries) or respiratory abnormalities (e.g. Chronic Obstructive Pulmonary Disease, asthma)
- Do not have any contraindications to wearing smart shoes such as severe peripheral neuropathy or open wound on the feet
- Have not undergone deep-brain stimulation or any other brain surgery

What will we ask you to do?

You'll need to come to the Kelvin Grove campus of the Queensland University of Technology (60 Musk Ave, Kelvin Grove QLD 4059). The complete assessment will take up to 3 hours.

We will provide you with a pair of smart shoes called NUSHU. As you walk, you'll feel vibrations in the shoes at different moments - sometimes when your foot is on the ground and sometimes when your foot is swinging. You will perform various walking tasks, including turning, walking on different surfaces, and dual-task walking. You'll do a few practice walks before the actual test.

Why take part?

- Contribute to research that may support future treatments
- Help researchers better understand freezing of gait
- Learn more about walking patterns in Parkinson's disease

If you would like to participate and need more information, please contact,

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Please note that this study has been approved by the QUT Human Research Ethics Committee (approval number 7473).