



## Vestibular and Cortical Contributions to Transitions in Freezing of Gait and Parkinson's Disease

**Status:** Recruiting

### Eligibility Criteria

**Sex:** Male or Female

**Age Group:** 18 years and over

This study is also accepting healthy volunteers

**Inclusion Criteria:**

- age 21-80 years - diagnosis of idiopathic PD with and without freezing gait - able to walk independently without the use of an assistive device (e.g. cane) for 50 meters (about 160 feet) - for HEALTHY OLDER ADULTS: 40-80 years old, able to walk independently without a cane or walker and able to perform complex activities of daily living independently - for HEALTHY YOUNG ADULTS: 21-44 years and able to walk independently without a cane or walker

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**Exclusion Criteria:**

- any musculoskeletal disorder that affects the ability to stand or walk - history of musculoskeletal disorders that significantly affect movement of lower limbs - uncorrected visual impairment - history of visual and/or vestibular conditions - moderate to severe hearing impairment - women who are pregnant - study staff will discuss additional exclusion criteria

### Conditions & Interventions

**Conditions:**

Brain & Nervous System

**Keywords:**

Clinics and Surgery Center (CSC), freezing gait, Parkinson's disease

### More Information

**Description:** This study will examine the brain activation associated with the transition between movements in Parkinson's disease, and if these changes are related to the development of problems with moving (like freezing of gait) and thinking. We will look at brain activity associated with the vestibular (inner ear) and cortical (surface of the brain) systems. People with Parkinson's disease (especially people with freezing of gait) sometimes have difficulty initiating changes in movement types, such as going from standing to walking, turning, or switching between slow and fast repetitive movements. The difficulty in movement transitions may be associated with an overactive vestibular system (inner ear) or cortical system. In each experiment in this study, we expect about 20-25 participants with Parkinson's disease and freezing of gait, 20-25 participants with Parkinson's without freezing of gait, and 20-25 control participants

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