

Research Study: Use of a Virtual Reality Platform to Measure Sensory Integration for Postural Control in Patients with PD and TBI

What is the purpose of this study?

Neurological disorders like Parkinson's disease (PD) and traumatic brain injury (TBI) can lead to balance deficits and falls, resulting in increased risk of injury and decreased quality of life.

This study uses virtual reality (VR) as an assessment tool to measure and understand how people with these conditions respond to changes in what they see and hear.

Who is eligible to participate?

- Must be at least 18 years old
- Must have a diagnosis with **one or neither** of the following:
 - Parkinson's disease
 - Traumatic brain injury/Concussion
- Must be able to stand without support for at least 2 minutes and walk household distances unassisted
- Must have normal or corrected-to-normal vision and hearing
- Must have no history of peripheral neuropathy
- Must be able to follow greater than 2-step commands

What is involved with participation?

Participants will be invited to one testing session at the Casa Colina Research Institute, which will take up to 60 minutes.

Activities will include completion of self-reported questionnaires and physical tests, as well as the standing VR assessment with changing conditions in what participants see and hear while wearing the VR headset.



For more information, or to find out if you, your patient, or your family member qualifies, please contact Niko Fullmer, Research Coordinator, Casa Colina Research Institute, at 909/596-7733, ext. 2220 or nfullmer@casacolina.org.

