

# People with Stroke and Parkinson's disease: Home and outdoor shoes

<https://neurodegenerationresearch.eu/survey/people-with-stroke-and-parkinsons-disease-home-and-outdoor-shoes/>

## Principal Investigators

Professor Ann Ashburn

## Institution

University Hospital Southampton NHS Foundation Trust

## Contact information of lead PI Country

United Kingdom

## Title of project or programme

People with Stroke and Parkinson's disease: Home and outdoor shoes

## Source of funding information

NIHR (RfPB Competition 18 - South Central)

## Total sum awarded (Euro)

€ 341,821

## Start date of award

20/01/2014

## Total duration of award in years

2.5

## The project/programme is most relevant to:

Parkinson's disease & PD-related disorders

## Keywords

### Research Abstract

**Background:** Falls among people with PD (PwPD) or people with stroke (PwS) are common and may lead to injuries, loss of independence and social isolation. Two thirds of PwPD and around three-quarters of PwS living in the community will have fallen in the previous 12 month period in comparison to one third of the general older population. Amongst the general older population researchers have found that those who went barefoot, wore socks or footwear with a

flimsy sole in the home were at greater risk of falling and instability. We have demonstrated that among PwPD and PwS most falls take place in the home possibly because they spend more time there but studies of the relationship between footwear worn in the home and falls among people in these groups are rare.

**Aims:** The specific aims of this feasibility study are to provide an improved understanding of footwear worn by PwPD and PwS, particularly in their home; to compare performance of balance and mobility tasks when wearing indoor or outdoor shoes; to examine the influence of footwear on balance and mobility using clinical measures and biomechanical parameters. The study will provide insight into user views and a greater understanding of the challenges people with either a chronic or progressive neurological disability face with respect to footwear. We expect the data generated from this study to inform a future trial to evaluate the effectiveness of fit-for-purpose footwear in the home, and the future development and evaluation of the use of footwear guidelines in everyday practice.

**Plan of Investigation:** Our feasibility study involves two phases. In the first phase we will report on participants' perspectives and views of their footwear using qualitative research methodology. In Phase 2, the balance and mobility of participants wearing their preferred indoor and outdoor footwear will be assessed in terms of plantar support areas, sway and quality of balance and walking using sophisticated biomechanical technology. The shoes will be characterised according to a standardised scale and data from Phases 1 and 2 will be integrated with User and Manufacturer involvement to produce recommendations for use in guidelines. Findings will contribute to future grant applications for a definitive trial of footwear worn in the home.

**Potential Impact:** PD is a common, progressive neurological condition affecting 100-180 per 100,000 of the population and characterised by deteriorating movements and postural responses. Stroke is a major cause of adult disability, affecting approximately 150,000 people per year in the UK. Studies of the general older population have identified exercise regimens and strategies (including footwear) are beneficial to fall prevention. In PD and stroke there is a lack of information relating appropriate footwear to impairments and reduction in risk of falls. Advice and guidance on shoes could potentially reduce instability, falls and injuries and enhance the effects of exercise for fall prevention. We propose that informed self-management is an important approach to healthcare particularly in long-term care.

## **Lay Summary**

**Further information available at:**

### **Types:**

Investments > €500k

### **Member States:**

United Kingdom

### **Diseases:**

Parkinson's disease & PD-related disorders

### **Years:**

2016

### **Database Categories:**

N/A

**Database Tags:**

N/A