

# Specially developed Wii games can help prevent falls

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New research, launched today and funded by the Centre for Ageing Research and Development in Ireland (CARDI), shows that playing video games can help older people improve their balance and make them less likely to fall.

The research was led by Professor Cathy Craig, Queen's University Belfast, partnered by Trinity College Dublin, found that older people's balance and gait was improved by playing specially developed video games using the [Nintendo Wii balance board](#).

## **Huge personal and social costs of falls**

Approximately 300 older people die from falls on the island of Ireland

each year and many thousands are injured, often seriously. Suffering a fall can damage an older person's confidence, reduce their mobility and lead to isolation and [loneliness](#). The economic cost of fractures and falls to health and social services is also significant and is estimated to be over €400 million in the Republic of Ireland alone. The costs associated with falls are predicted to increase sharply as the population ages.

## **Building better balance**

Professor Craig says: "Improving balance and [gait](#) can play an important role in helping older people avoid falls and injury as well as improving their mobility confidence. The games designed in this project to build better balance were formulated with older people in mind. Older people who played the games enjoyed an improvement in both static and [dynamic balance](#). This approach proved to be a fun way of achieving these benefits in a novel, stimulating and cost-effective manner.

The study tested the games on participants in Dublin and Belfast and found that those who played the games had significantly greater improvements in [balance control](#) than those who didn't. The researchers concluded that such improvements in balance could play an important role in reducing the risk of falls in [older adults](#).

Professor Bob Stout, Co-Chair of CARDI, says: "This research highlights an engaging way for older people to improve their balance and mobility, helping them to avoid falls and serious injury. This brings great personal benefits for older people and financial gains for society as a whole."

## **Falls- Key Facts**

- Older people make up 70% of all deaths from falls in the

Republic of Ireland (RoI) and Northern Ireland (NI) and those over 80 years and older women are particularly vulnerable.

- In RoI, an official report projected an increased number of falls among people aged 65+ from 148,000 to 320,000 and a rise in the annual treatment cost from €400 million to €2 billion between 2006 and 2031 in the absence of a strategic approach to the problem (HSE, NCAOP and DoHC, 2008).
- In an acute hospital in RoI, fall-related admissions in one year resulted in 8,300 acute bed days and 6,220 rehabilitation bed days, costing €10.3 million (Cotter et al, 2006).
- In Northern Ireland, the death rate from home accidents rose from 4.6 deaths per 100,000 in 2003 to 6.4 in 2009, despite a target to reduce it to 3.9 (DHSSPS, 2011).

Provided by CARDI

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