

Balance and strength training can prevent falls in older people

August 7 2012

Balance and strength training is known to reduce falls in older adults. However, less than 10% of older people routinely engage in strength training and it is likely that this is much lower for activities that challenge balance.

It has been suggested that integrating exercise into [everyday activities](#) may help people stick to it, but this approach has never been investigated in frail older people at risk of falls.

So a team of researchers at the University of Sydney designed and tested the Lifestyle integrated Functional Exercise (LiFE) programme, which involves embedding balance and [lower limb strength training](#) into daily routines, such as walking, stepping over objects and moving from sitting to standing.

They then compared this approach with a structured exercise programme (performed three times a week using ankle cuff weights) and gentle 'sham' exercises that acted as the study control.

They recruited 317 men and women aged 70 or older, living in the community and having two or more falls, or one injurious fall, in the past year.

Participants were split into the three treatment arms and recorded any falls over 12 months using daily calendars. Other measures like static and [dynamic balance](#), ankle, knee and hip strength, daily living activities,

and [quality of life](#) were also measured recognised scales.

They found a significant (31%) reduction in the rate of falls for participants in the LiFE programme compared with the control group. The overall incidence of falls in the LiFE programme was 1.66 per person years, compared with 1.90 in the structured programme and 2.28 in the control group.

There was a non-significant reduction in the rate of falls for participants in the structured programme compared to the control group.

Compared with control patients, LiFE participants showed improvements in both static and dynamic balance, ankle strength, and in function and participation in daily life, suggesting that this programme improves both fall risk and frailty.

[Adherence](#) was significantly better in the LiFE programme and [control group](#) compared with the structured exercise programme.

The authors conclude that the LiFE programme "provides an alternative to traditional exercise for older people to reduce falls, to improve function in doing activities and to enhance participation in daily life."

In an accompanying editorial, Professor Meg Morris from the University of Melbourne says that for fall prevention programmes in older people to be effective, "therapeutic exercises, education, and physical activities need to be sustainable, enjoyable, and effective over the long term."

She adds: "The belief that falls should be accepted and tolerated as part of the ageing process is a myth that needs dispelling. Many falls can and should be prevented."

More information:

www.bmj.com/cgi/doi/10.1136/bmj.e4547

www.bmj.com/cgi/doi/10.1136/bmj.e4919

Provided by British Medical Journal

Citation: Balance and strength training can prevent falls in older people (2012, August 7)
retrieved 12 February 2023 from <https://medicalxpress.com/news/2012-08-strength-falls-older-people.html>

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