



**Title:** Interventions for Preventing Falls in Older People Living in the Community (Review)

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**Document available to download at:**

[http://www.cochranejournalclub.com/preventing-falls-in-nursing-care-facilities-and-hospitals/pdf/CD007146\\_standard.pdf](http://www.cochranejournalclub.com/preventing-falls-in-nursing-care-facilities-and-hospitals/pdf/CD007146_standard.pdf) (accessed June 2011)

An mp3 podcast by the Cochrane Collaboration about their subsequent similar research is also available to download at <http://www.cochrane.org/podcasts/issue-2-april-2009/interventions-preventing-falls-older-people-living-community> (accessed June 2011).

**SCS topic headings:** Personal Safety; Home Safety; Safety in Public Spaces; Safety of Vulnerable Groups; Community Engagement; Equalities & Diversity

**[This document is a REVIEW of effective intervention approaches.](#)**

### Summary of the review's aim

This review considers effective methods that may prevent falls for older people living in the community. The review's outcomes and conclusions are based on assessing 111 randomised controlled physical or medicinal trials, totaling 55,303 participants. The document begins with a plain language summary of findings; however, the remainder of the document is heavily detailed. Yet it yields a great amount of data and evaluation of many interventions for preventing falls in older people.

### Outcomes

Effective outcomes appear to derive through interventions covering both physical and medication based interventions:

- Multi-factorial interventions assess an individual person's risk of falling, and then carry out or arrange referral for treatment to reduce their risk. They have been shown in some studies to be effective but have been ineffective in others. Overall current evidence shows that they do reduce rate of falls in older people

living in the community. These are complex interventions and their effectiveness may be dependent on factors yet to be determined.

- Exercise programmes may target strength, balance, flexibility, or endurance. Programmes that contain two or more of these components reduce rate of falls and number of people falling. Exercising in supervised groups, participating in Tai Chi, and carrying out individually prescribed exercise programmes at home are considered effective.
- Table 1 (on page 8) highlights categories of exercise in interventions containing exercise alone.
- Interventions to improve home safety do not seem to be effective, except in people at high risk, for example with severe visual impairment.
- Taking vitamin D supplements probably does not reduce falls, except in people who have a low level of vitamin D in the blood. These supplements may be associated with high levels of calcium in the blood, gastrointestinal discomfort, and kidney disorders.
- Some medications increase the risk of falling. Ensuring that medications are reviewed and adjusted may be effective in reducing falls. Gradual withdrawal from some types of drugs for improving sleep, reducing anxiety and treating depression has been shown to reduce falls.
- Cataract surgery reduces falls in people having the operation on the first affected eye. Insertion of a pacemaker can reduce falls in people with frequent falls associated with carotid sinus hypersensitivity, a condition which may result in changes in heart rate and blood pressure.
- Pp. 49-184 details the characteristics of the review's studies in tabular form, presenting brief information regarding each study in the following areas:
  - Trial name or title
  - Methods
  - Participants
  - Interventions
  - Outcomes
  - Starting date
  - Contact information.
- Appendix 4. (p.316) details economic evaluations of the studies; reporting costs or cost effectiveness of each intervention or the costs of healthcare resource use.

## Summary of evaluation conclusions

- The best evidence for the efficacy of interventions to prevent falling should emerge from large, well-conducted randomised controlled trials, or from meta-analysis of smaller trials.
- A systematic review is required to identify the large number of trials in this area and summarise the evidence for health care professionals, researchers, policy makers and others with an interest in this topic.

### **How the evaluation gathered information for findings and conclusions**

The authors discuss the rationale behind their research approach and present criteria for considering studies for this review. Selection was based on:

- Types of studies
- Types of participants
- Types of interventions
- Types of outcome measures (i.e. including only trials that reported outcomes relating to rate or number of falls, or number of participants sustaining at least one fall during follow up (fallers)).

Studies were selected based on their primary research outcomes being an intervention's effectiveness on the rate of falls and number of fallers. Secondary outcomes then included the number of participants sustaining fall-related fractures, any adverse effects of the interventions, and an intervention's economic outcomes.

The researchers undertook a search for suitable studies through a range of different approaches:

- Electronic searches
- Searching other resources
- Data collection and analysis Selection of studies
- Data extraction and management
- Assessment of risk of bias in included studies.

**Further details about the SCS evaluation of this report are available on request. Please contact [info@scsn.org.uk](mailto:info@scsn.org.uk)**

**Date added to the SCS website: June 2011 (RC)**