PEARLS

Practical Evidence About Real Life Situations

Can changing the environment prevent falls in older people?

Clinical Question	What are the effects of changing the environment, such as removing fall-hazards, assistive technology and home modifications, on the prevention of falls in older people?
Bottom Line	There is high-certainty evidence that home fall-hazard interventions are effective in reducing the rate of falls and the number of fallers when targeted at people at higher risk of falling. For the selected higher risk category, based on an illustrative risk of 1847 falls per 1000 person-years in the control group, there were 702 (38%) fewer falls per 1000 person-years in the home fall-hazard group. There was no evidence of effect when interventions were targeted to people not selected for risk of falling. It makes sense that this intervention that focuses on the home environment and interaction of the person within their environment would benefit those at higher risk rather than the general community of older people. It was unclear if assistive technology, education interventions or home modifications would result in any reduction of falls, but this evidence was all of low or very low quality which was in part due to very low sample numbers.
Caveat	Few studies provided fracture, medical attention, hospital admission, HRQoL, or adverse events data. The majority of trials excluded older people who were cognitively impaired, therefore these results may not be applicable in that particular high-risk group.
Context	Falls and fall-related injuries are common. A third of community-dwelling people aged over 65 years fall each year. Falls can have serious consequences including restricting activity or institutionalisation. This review assessed reducing the number of falls which could hopefully result in reduced ongoing consequences such as hospital admissions and fractures.
Cochrane Systematic Review	Clemson L, Stark S, Pighills AC, Fairhall NJ, Lamb SE, Ali J, Sherrington C. Environmental interventions for preventing falls in older people living in the community. Cochrane Database of Systematic Reviews 2023, Issue 3. Art. No.: CD013258. DOI: 10.1002/14651858.CD013258.pub2. This review contains 22 trials with a total of 8463 participants.

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Systematic review link:
https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013258.pub2/full