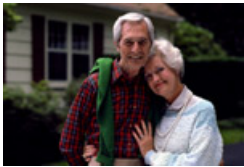


## Fact Sheet: Preventing falls in older people



People who stay active and mobile have more independence. It can be a big part of staying healthy in older age. That's why some older people are afraid of falling and breaking something. But people who let this fear limit their daily activities might even pay a price that could be higher than the consequences of a fall. People who stop being active might even have a higher risk of falling than a person who is out and about a lot. That's why it is worthwhile to be practical about the risk of falling. You can take some basic precautions, without always having to worry about falling.

## Falls in older age: Can they be avoided?

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## What is the risk of injury from falling?

Most of the time, falls in older people are minor and do not lead to any serious problems. About 30 out of every 100 men and women over the age of 65 will have a fall in any one year (30%). The rate in people who live in nursing homes or residential care is higher though.

About 9 out of 10 falls (90%) have no serious consequences, but sometimes there is an injury that needs medical attention. Only about 1 in 10 falls causes a broken bone (10%). Most of these affect the forearm. Hip or thigh fractures cause more serious complications and can restrict activities. They are more of a risk for much older people.

## What are the more likely causes of falls?

The causes of falls can be separated into two groups. The first group includes obstacles and hazards around the home or other environment like loose rugs or carpets or things you might trip over, electric cables, slippery floors and bath mats that slip easily. Going to the toilet at night with just socks on can increase the chances of an accident on slippery floors.

In the second group there are health factors that do not necessarily have to do with a person's age. Eyesight that has gotten worse, and dizziness caused by too low or too high blood pressure can increase the risk of a fall. So can illnesses that affect the sense of balance, and psychotropic medications like sleeping tablets, sedatives and antidepressants that affect your attention and reflexes. Older people who have already had one fall are at a higher risk of falling again. A fall is a good opportunity to give some thought to how to reduce the risks of falling.

## How can you keep yourself safe?

Some of the measures you can take to avoid falls are simple. You only need to give it some thought, or talk with your doctor. Which strategy might work, though, depends on your personal and health situation. This is one of the reasons why there is no one piece of advice that can protect everyone against falling in every situation. There are some things that might be worth trying, even though there is no guarantee that they will work:

- Assessing your home for hazards and reducing them. This includes making sure you have good lighting and enough room to move around between furniture
- Individual training: a trained instructor who can help you strengthen your muscles and improve your balance
- Reducing the use of psychotropic drugs that can increase the risk of falling

There are lots of other common recommendations, but they lack good evidence to show if they are likely to help. This includes for example general group exercise training, or exercises to strengthen just the legs, dietary supplements and menopausal hormone therapy.

Some doctors have suggested that vitamin D deficiency might weaken the muscles and increase the risk of falling. There is conflicting evidence, though, on whether or not taking vitamin D with or without calcium can prevent falls. However, there is good evidence that daily doses of 700-800 mcg of vitamin D can reduce the risk of a bone fracture if you do fall. You could also discuss with your doctor other options to reduce your risk of broken bones.

## Glossary

### calcium

Calcium is an important mineral for human health. It is one of the building blocks for bones and teeth, and it is necessary for blood clotting, the muscles and the nerves. Calcium occurs in milk and milk products, as well as in green leafy vegetables. People can get a calcium deficiency if they have a chronic inflammatory bowel disease, as well as in pregnancy or during breastfeeding.

### evidence

Evidence is what we call scientific proof from well-conducted, good-quality scientific trials that have been carefully designed to answer specific questions. Depending on the types of questions, different scientific research methods (types of study) are most appropriate to find reliable answers to these questions. Randomized controlled trials (RCTs), for example, are the best way to get reliable evidence on the effectiveness of medical treatments (interventions). This type of study, however, is not the best form of evidence for all possible questions, and does not provide the best answers to all kinds of questions, either. Epidemiological studies, for example, are very suitable for establishing well-founded proof for the spreading of a disease in the population.

### psychotropic drugs

Psychotropic drugs are medicines that are used for psychological conditions such as depression and anxiety.

### dietary supplement

Dietary supplements (also known as food supplements or nutritional supplements) are concentrated vitamins, minerals, trace elements, fibers and/or other substances that are intended to supplement the diet. Advocates of dietary supplements claim that they have a certain, often preventive or strengthening effect on the body. They are available as capsules, pills, powder or ampules, for example. From a legal point of view, dietary supplements rank among foods and therefore – as opposed to medications – do not need official approval. More information is available on the website of the German Federal Institute for Risk Assessment (Bundesinstitut für Risikobewertung, BfR): [To the BfR website \(in English\)](#)

## Sources

Bischoff-Ferrari HA, Willett WC, Wong JB, Giovannucci et al. Fracture prevention with vitamin D supplementation: a meta-analysis of randomized controlled trials. *JAMA* 2005; 293: 2257-2264. (Summary on Medline) (URL: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=15886381&query\\_hl=6&itool=](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15886381&query_hl=6&itool=)

Chang JT, Morton SC, Rubenstein LZ, Mojica WA et al. Interventions for the prevention of falls in older adults: systematic review and meta-analysis of randomised clinical trials. *BMJ* 2004; 328: 680. (Article full text) (URL: <http://bmj.bmjournals.com/cgi/content/full/328/7441/680>)

LD Gillespie, WJ Gillespie, MC Robertson, SE Lamb et al. Interventions for preventing falls in elderly people. *Cochrane Database of Systematic Reviews*, Issue 1 of 2006. (Cochrane Database) (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD000340/frame.html> )

Jørstad EC, Hauer K, Becker C, Lamb SE on behalf of the ProFaNE Group. Measuring the psychological outcomes of falling: a systematic review. *J Am Geriatr Soc* 2005; 53: 501-510. (Summary on Medline) (URL: [http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list\\_uids=15743297&query\\_hl=10&itool=](http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=pubmed&dopt=Abstract&list_uids=15743297&query_hl=10&itool=)

Lyons RA, Sander LV, Weightman AL, Patterson J et al. Modification of the home environment for the reduction of injuries. *Cochrane Database of Systematic Reviews*, Issue 4 of 2003. (Cochrane Database) (URL: <http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD003600/frame.html>)

Oliver D, Daly F, Martin FC, McMurdo MET. Risk factors and risk assessment tools for falls in hospital in-patients: a systematic review. *Age and Ageing* 2004; 33: 122-130. (Article full text) (URL: <http://ageing.oxfordjournals.org/cgi/content/abstract/33/2/122>)

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Our information is based primarily on systematic reviews of the effects of health care. Systematic reviews are necessary to gain an objective picture of health care. In order to do this, a clear question is formulated. Researchers then find all the relevant studies that could answer this question. They then evaluate those studies.

You can find a list of the evidence and other scientific literature on which this information is based at **[www.informedhealthonline.org](http://www.informedhealthonline.org)**

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