

# Best foot forward

Falls Awareness Week 2013  
– healthy feet supplement



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# About this guide

## Each year, Falls Awareness Week has a different theme.

This is used to highlight the various risk factors for falls, help event holders to focus their activities, and shape our national media work.

This guide covers the key messages and information relating to the theme of Falls Awareness Week 2013. It accompanies the Falls Awareness Week Action Pack, which contains general information on how to register for Falls Awareness Week, ideas for different types of events and tips on engaging older people with the subject of falls prevention.

We recommend you read both publications before planning your event, so that you are able to make the most of all the information available, and keep copies for future events.

The Action Pack can be downloaded from [www.ageuk.org.uk/fallsweek](http://www.ageuk.org.uk/fallsweek) or ordered by emailing [falls@ageuk.org.uk](mailto:falls@ageuk.org.uk)



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# Falls and feet

Keeping feet healthy is fundamental to maintaining mobility and independence.

As we get older, we're much more likely to suffer from foot conditions and complaints, such as bunions and stiffness in toe joints and ankles. These problems, along with the foot pain they can cause, all affect our balance and walking and reduce sensation in our feet, which often leads to falls.

In addition to these risk factors, studies have shown that some types of footwear and going barefoot indoors can also contribute to falling.

## Foot-related risk factors for falls:

- foot pain
- stiffness in toes and ankles
- foot and toe weakness and deformities such as bunions and claw toes
- toenail disorders
- unsuitable or loose-fitting footwear

Listed are a number of simple interventions that can help to improve foot health and reduce these risks, which Age UK will be promoting during Falls Awareness Week 2013.

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Emphasise the importance of wearing well-fitting shoes to reduce the risk of falls, and particularly about the shoe characteristics that can aid walking.



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## Exercise

It is well known that exercise plays a vital role in falls prevention. There are a number of research trials that show exactly how effective a programme of strength and balance can be in reducing risk, both for primary and secondary prevention of falls. While these programmes focus on building leg strength, emerging evidence has highlighted that exercises to improve toe and ankle strength can also significantly improve balance and functional ability, and thereby reduce falls.

Older people should be encouraged to carry out regular exercises to improve toe and ankle strength at home. These can also be incorporated into existing falls prevention exercise classes for maximum benefit.

## Footwear

Some footwear can increase the risk of slips, trips and falls in a number of ways. As well as influencing balance, poor footwear can act as a barrier and make it difficult to judge surface friction and distance from the floor. Other shoe characteristics, such as the height of the back of the shoe that goes over the heel, sole hardness and tread can also affect balance and gait.

Older people should therefore be advised about the importance of wearing well-fitting shoes to reduce the risk of falls, and particularly about the shoe characteristics that can aid walking and gait. These include:

- a high back or 'collar' to support the ankle
- a hard, slip-resistant sole
- heel height lower than one inch.

It is also recommended that older people wear shoes or well-fitted, slip-resistant slippers indoors, rather than walking barefoot or in socks or tights, as this has also been shown to be a risk factor for falling.

## Foot care

Taking care of feet is an essential part of falls prevention. Foot conditions, such as bunions, claw toes and ingrown toe nails, can all cause problems with gait and balance, as can foot pain, which is an independent risk factor for falls.

Older people should be advised to check their feet regularly and speak to their GP, podiatrist or chiropodist if they notice any problems, have any reduction in foot sensation, or develop foot pain. This message is especially important when it comes to pain, which is often regarded as part of getting old and therefore ignored.

Following a foot care routine can further help reduce the risk of falls by preventing some of the conditions that can cause pain and problems with balance. This includes:

- washing and drying feet daily to prevent infection
- applying moisturiser to keep skin healthy
- cutting toenails regularly
- regular podiatry for management of foot problems.



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# Event ideas

The following are just a few ideas of ways to promote these messages as part of your Falls Awareness Week event.

## Don't lose your marbles

Picking up marbles with your toes and dropping them into a cup one at a time is a great way of highlighting some of the exercises that you can do to strengthen toes and ankles and reduce foot pain (see La Trobe University Falls Home Exercise Programme page 5 for further details). You could run a competition to see who can collect the most marbles in a set time.

Be aware of health and safety issues and clear the marbles away before getting your participants to stand up again. You may also want to clean or use new marbles for each participant. Marbles come in a variety of sizes – as do toes! – so think about having a range available so that participants do not become frustrated and give up.

You could also set up demonstrations to show a range of foot and ankle exercises using the La Trobe University Falls Trial Home Exercise Programme.

## Sloppy slipper exchanges

This is a great way of grabbing attention and can be used to talk about the different characteristics of shoes that can cause slips and trips. If you have the funds, you can purchase new slippers and offer them in exchange for the old ones. If you don't have the funds, have some examples of 'unsafe' and 'sensible' slippers on hand to highlight the risks.

## Foot checks

Draw in new participants and service users and raise awareness of the importance of maintaining good foot health by inviting a podiatrist to give a free foot health check, or talk about how to keep feet healthy and identify problems. Many local Age UKs offer a footcare service, so you may also want to invite them along.

## Foot measurements

Another way to attract participants is by offering free foot measurements. Measure a participant's foot width as well as length. Discovering the correct size shoe can raise awareness of the importance of wearing well-fitting shoes. Your local shoe shop may be able to offer this service as part of an event. Coupons for shoes, if you can get them, will also be a great pull.

## Run a survey

Find out how many of your participants or older people in your local community suffer from foot pain and how many know that this is a risk factor for falls. You could do this in advance of your event and use it to generate interest through the local media, or in other promotional activities, to highlight what you are doing to raise awareness of the interventions that can help.

## Freebies

Contact foot care companies for freebies or money-off vouchers. Previous Falls Awareness Week event holders have managed to secure samples of heel balm to give away at their events, and found it a great way to engage participants and visitors with messages about foot health.

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# Resources

## **Falls and feet leaflet**

We have produced a leaflet for older people to highlight the foot problems that can lead to falls, as well as the interventions that can reduce risk, including examples of some exercises to improve toe and ankle strength.

To order, call Age UK Advice on **0800 169 65 65**.

The following pages outline further resources that may also help you to promote messages on feet and falls at your event.

## **La Trobe University Falls Trial Home Exercise Programme**

The following are examples of some of the exercises used in the La Trobe University Falls Trial Home Exercise Programme. They can be used within your Falls Awareness Week activities and events, either as a demonstration or competition (see Event ideas page 4).

The full exercise programme can be found at [www.ageuk.org.uk/fallsweek](http://www.ageuk.org.uk/fallsweek). It is recommended that the programme is carried out three times a week for 30 minutes each time.

**Equipment needed:** marbles, theraband (elastic resistance bands used to strengthen muscles – they are colour-coded for different levels of resistance), heavy table or chair to attach the theraband to (you may need to have someone seated in this chair to ensure it does not move when participants are carrying out the exercises).

Exercise 1: Ankle circling (warm-up)

Exercise 2: Ankle dorsiflexion (toe-up) exercise

Exercise 3: Toe strengthening exercise

Exercise 4: Big toe stretch

Exercise 5: Double heel raise

**Exercises and images reproduced with thanks to Dr. Martin Spink.**

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Therabands are elastic resistance bands used to strengthen muscles, they are colour-coded for different levels of resistance.



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# Foot and ankle home exercises

## Exercise one

### Ankle circling (warm-up)

#### Set-up

- 1 Sit comfortably in a chair with both feet on the ground

#### Clockwise circling exercise

- 1 Lift one foot off the ground and hold it up in the air.
- 2 Using slow and gentle movements, rotate ankle and circle foot in a clockwise direction, making as large a circle as possible.
- 3 Repeat ten times in a clockwise direction, then place the foot down to rest.
- 4 Lift the other foot up and make ten clockwise circles using this foot.

#### Anti-clockwise circling exercise

- 1 Lift the first foot off the ground again and hold it up in the air.
- 2 This time, rotate the ankle and circle the foot in an anti-clockwise direction, making as large a circle as possible.
- 3 Repeat ten times in an anti-clockwise direction and then place the foot down to rest.
- 4 Lift the other foot up and make ten anti-clockwise circles using this foot.

#### Quantity

Do only one set of ten circles in each direction on each foot.



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## Exercise two

### **Ankle dorsiflexion (toe-up)**

#### **Set-up**

- 1 Sit comfortably in a chair with both feet flat on the ground.

#### **Exercise**

- 1 Lift your toes on both feet off the ground as high as you can and hold for ten seconds.
- 2 Ensure that your heels remain in contact with the ground at all times.

#### **Quantity**

Start with one set of three repetitions, holding for ten seconds each time.

If you can do three repetitions without difficulty or muscle soreness the next day, increase by one to four repetitions of ten seconds.

Keep increasing the number of repetitions until you reach ten. It does not matter if you do not reach ten repetitions.



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## Exercise three

### Toe strengthening exercise

#### Introduction

Picking up marbles with toes

#### Set-up

- 1 Sit comfortably in a chair.
- 2 Place 20 marbles on the floor and an empty container by the side of the marbles.

#### Exercise

- 1 Use your toes to pick up a marble off the floor.
- 2 Release it into the container.
- 3 Keep picking up the marbles with your toes until all 20 marbles have been picked up and released into the container.
- 4 Tip the marbles out onto the floor again, and repeat the exercise with your other foot.

#### Quantity

Repeat the exercise twice with each foot, each time picking up 20 marbles.

If you have difficulty picking up all 20 marbles with your toes, just pick up as many as you are able to and gradually build up to 20 marbles over time.



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## Exercise four

### Big toe stretch

#### Introduction

Big toe pull

#### Set-up

- 1 Sit comfortably in a chair.
- 2 Loop the rubber band provided around both your big toes as shown.

#### Exercise

- 1 Slide one foot away from the other until you feel a comfortable stretch in your big toes from the rubber band.
- 2 Keep both feet on the ground and hold the stretch in the big toes for 20 seconds.
- 3 Relax and return the foot back to the starting position.
- 4 Repeat three times.



## Exercise five

### Double heel raise exercise

#### Set-up

1 Stand in front of a wall with hands on the wall for balance and your feet flat on the ground at a comfortable distance apart.

#### Exercise

- 1 Slowly rise up onto your toes.
- 2 Rise up as high as you can, then slowly lower yourself back down onto the ground.
- 3 Repeat the exercise ten times.

#### Quantity

Do three sets of ten repetitions.

Have a 30 second rest in between each set.

#### Progression

Start with ten repetitions.

Once you can complete all three sets of ten repetitions without any difficulty or soreness the next day, increase the number of repetitions by two to 12, and do three sets of 12 repetitions.

Keep increasing the number of repetitions by two until you reach 50, or as many as you are able to. It does not matter if you cannot go up to 50 repetitions.



For a full list of feet and ankle exercises you can visit [www.ageuk.org.uk/fallweek](http://www.ageuk.org.uk/fallweek)



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# What makes a shoe safe or unsafe?

## Safe shoe descriptor



- 1 A firm heel collar to provide stability
- 2 A low, broad heel to maximise contact with the ground



- 3 A flexible, lightweight, slip-resistant and rubber sole
- 4 Shoes that can be firmly secured with adjustable fastening, such as velcro, lace or straps with buckles to hold your foot when walking

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## Unsafe shoe descriptor



- 1 Slip-on shoes such as sling-backs or moccasins can slip off and trip you up
- 2 Shoes with slippery or worn soles can cause you to slip up, especially in wet weather



- 3 Shoes with a heel higher than one inch or with a narrow heel. High heels or narrow heels make your foot unstable and can cause your ankle to turn

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# Facts about feet and falls

## 1

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### **The five most commonly occurring foot problems in older people are:<sup>1</sup>**

- toenail disorders such as hardened or ingrown nails
- lesser toe deformities such as overlapping toes
- corns and calluses
- bunions
- signs of fungal infection, cracks/fissures or maceration between toes.

Most of these can be prevented with good foot care.

## 2

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### **Over 400,000 over 65s have difficulties cutting their own toenails.<sup>2</sup>**

## 3

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### **A multi-faceted foot care programme including foot and ankle exercise programme, foot orthoses and advice on footwear can reduce the number of falls by 36 per cent.<sup>3</sup>**

## 4

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### **Older people who have experienced falls are 15 per cent more likely to suffer from foot pain than those who haven't.<sup>4</sup>**

1 Dunn et al. (2004) 'Prevalence of foot and ankle conditions in a multiethnic community sample of older adults', *American Journal of Epidemiology*

2 Prevention package, Department of Health, 2009 accessed 08/11/2012, at [www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH\\_103146](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/DH_103146)

3 Spink et al. (2011) 'Effectiveness of a multifaceted podiatry intervention to prevent falls in community dwelling older people with disabling foot pain', *British Medical Journal*

4 Mickle et al. (2010) 'Foot pain, plantar pressures and falls in older people'. *Journal of American Geriatrics Society*

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# Recommendations for service development

There is a growing body of evidence showing the links between foot problems and falls and highlighting the individual interventions that will reduce risk.

As well as raising awareness of this among older people through Falls Awareness Week events, there are a number of recommendations from recent research that can be incorporated into falls prevention and exercise services and strategies for ongoing benefit.

In line with general falls prevention guidelines, interventions to reduce the risk of falls caused by foot conditions and footwear should follow a multi-factorial assessment. Interventions should also offer a multi-faceted podiatry programme which consists of foot orthoses, advice and provision of footwear, a home-based foot and ankle exercise programme, and education in falls prevention. The strongest evidence for this has shown a 36 per cent reduction in falls over a 12-month period.

The recommended interventions include:

- advice on footwear
- subsidy for footwear
- home-based exercises for feet and ankles
- a falls prevention education booklet
- routine assessment for foot pain and referral to appropriate podiatry services.

Routine podiatry care for management of foot conditions should also be offered, where available, and can include:

- nail care, e.g. toenail-cutting and removal of ingrown toenails
- removal of calluses and corns
- assessment of general foot health, e.g. vascular sufficiency, neurological impairment and biomechanical problems.



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# Falls and podiatry services: good practice examples

The following service descriptions outline some of the different approaches to assessing and treating falls caused by foot problems and integrating podiatry care within falls services.

## County Durham and Darlington NHS Foundation Trust, Easington locality

Easington Integrated Falls and Osteoporosis Service was first commissioned in 2005. In addition to the physiotherapist and osteoporosis nurse, the service includes a podiatrist who is involved in delivering care to patients, where required.

All patients are routinely asked about foot pain and foot problems in their initial falls risk assessment and assessed for:

- range of motion
- foot strength
- gait analysis
- vascular and neurological status
- footwear.

Based on this assessment, the falls service provides a range of interventions including:

- orthotics care
- footwear advice
- recommendations for home exercise to strengthen feet
- referral to the podiatry team for routine nail and skin care.

## St George's Healthcare NHS Trust, London

The Integrated Falls and Bone Health team at St George's Healthcare NHS Trust has recently revised its service to provide wider access and availability to podiatry interventions.

During the initial falls risk assessment, foot pain and footwear is routinely assessed using a visual aid and foot diagram devised by the podiatrist. This is used by health professionals within the falls team to identify signs and symptoms of pain and deformity, and where referral for podiatry interventions is necessary.

Although the podiatrist is no longer based in the falls team, a wider variety of venues and clinic sessions have been opened up to facilitate greater access to podiatry services. Waiting time is within one month, and home visits are also available. In addition, 'bank' podiatry hours have been retained within the falls service to meet the needs of patients who prefer to be treated at the falls clinic. The administrative base for the podiatry service is also in the same building as the falls team, which further supports joint working and a two-way referral system between the teams.



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## Liverpool Community Health NHS

Although the multi-disciplinary Falls Service at Liverpool Community Health NHS Trust includes a podiatrist for specialist intervention, each team member has been trained to identify different podiatric risks as part of the multi-factorial assessment given. The team also work together to ensure all patients have access to information and treatment for foot problems. For example, the podiatrist may attend exercise sessions run by the physiotherapist to assess participants for foot and balance problems.

Assessments by the podiatrist include:

- range of motion (hip, knee, ankle)
- pain (using a picture of a foot for the older person to indicate where the pain is)
- walking and gait
- weight bearing
- leg length
- spinal abnormalities
- biomechanical problems.

Based on this assessment, patients are offered a range of interventions including:

- advice on footwear
- advice on self-management of foot health
- signposting and referral
- orthotics.

These interventions have had significant impact on the mobility and quality of life of patients seen in the falls service. This resulted in patients being able to walk more easily and take part in exercise classes, having received orthotics to correct leg length. Others reported a reduction in falls after receiving care and orthotics for disabling foot pain caused by foot conditions such as damaged nerve endings in corns.

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A foot care routine can further help reduce the risk of falls by preventing some of the conditions that can cause pain and problems with balance.



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