



# The Serious Side of Gravity: Preventing Falls and Fractures

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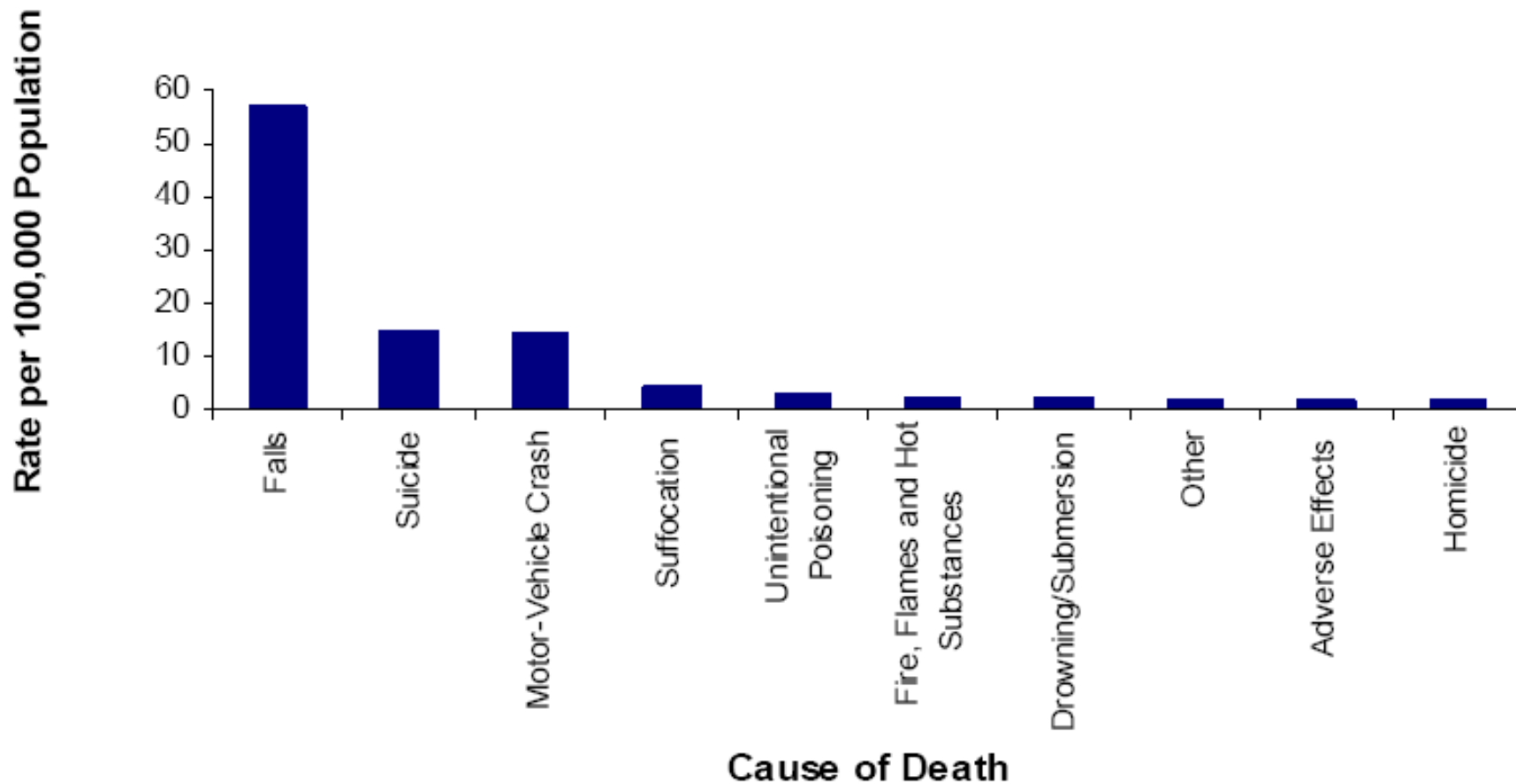
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# Size of the Problem

- 1 in 3 older adults will experience at least one fall every year
- 90% of hip fractures and wrist fractures in the elderly are due to falls
- 25% of older adults hospitalized for hip fractures die within the first year and 50% are not able to return home or live independently
- Around 40% of admissions to residential care facilities are due to falls



## Average Annual Mortality Rates per 100,000 Population by Top 10 Causes\*, Seniors Ages 65+ Years, BC, 1990-2003

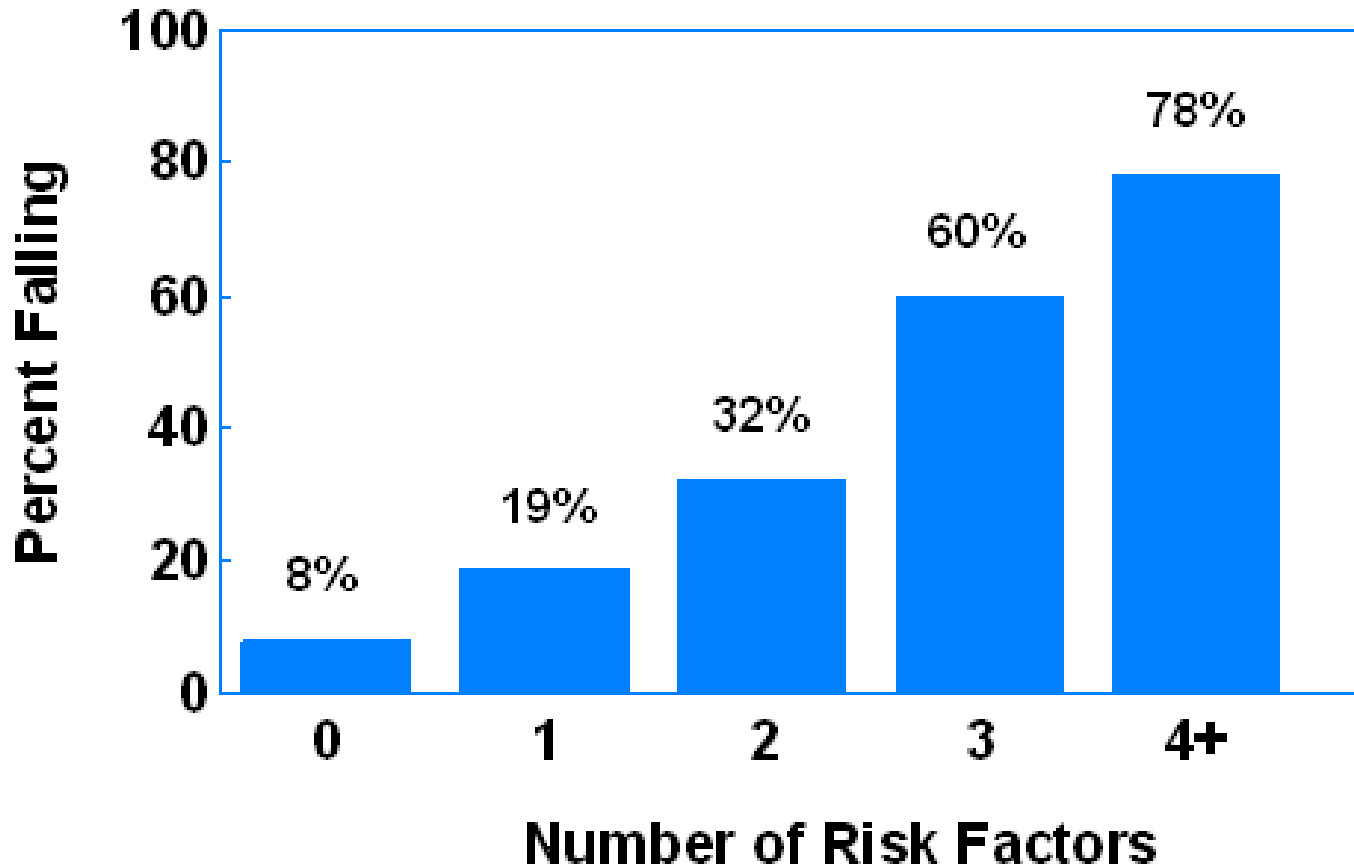




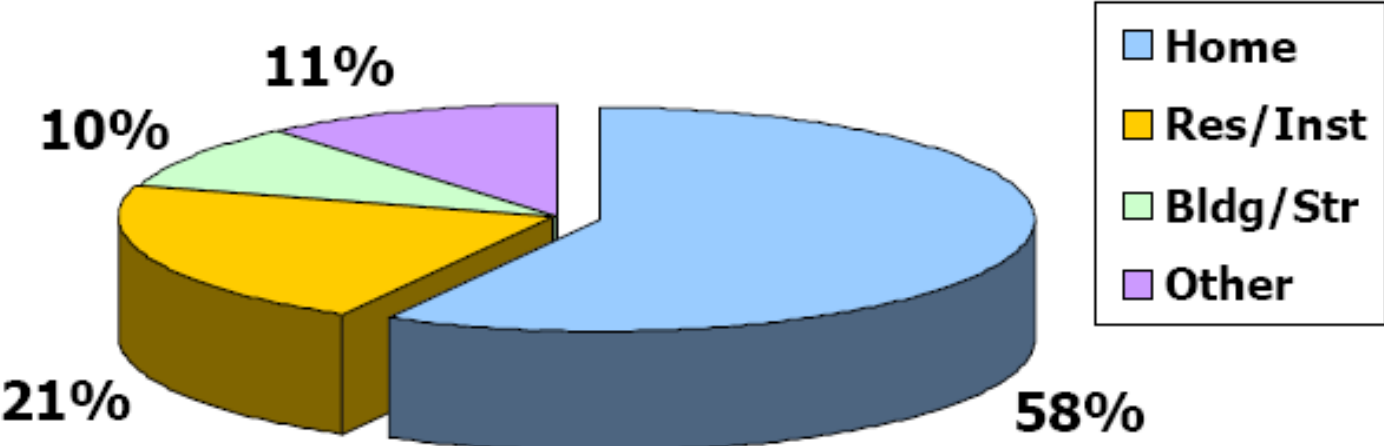
- History of falls in the last 6 months
- Impaired balance, mobility, muscle weakness, co-ordination
- Impaired Safety Awareness – lack of insight/judgment
- Risk taking behavior
- Cognitive impairment e.g. memory loss, disorientation, delirium
- Agitation and restlessness
- Sleep disturbance
- Syncope and dizziness
- Use of Restraints
- Fear of falling
- Medication – dosage/recent changes
- Dehydration/malnutrition
- Incontinence/Bowel – urgency and frequency
- Poor proprioception and tactile sensation e.g. feet
- Vision/hearing impairment
- Use of mobility aid/wheelchair
- Footwear – incorrect fit and slip sole
- Poor physical environment



# Probability of Having Falls



# BC Fall Cases by Location, Ages 65+



# What YOU Can Do



## To Prevent Falls



What YOU Can Do To Prevent Falls:

**Have your eyes checked  
by an eye doctor at least  
once a year**

"I have my eyes  
checked by an  
eye doctor every  
year. Last time I  
found out I needed  
new glasses."



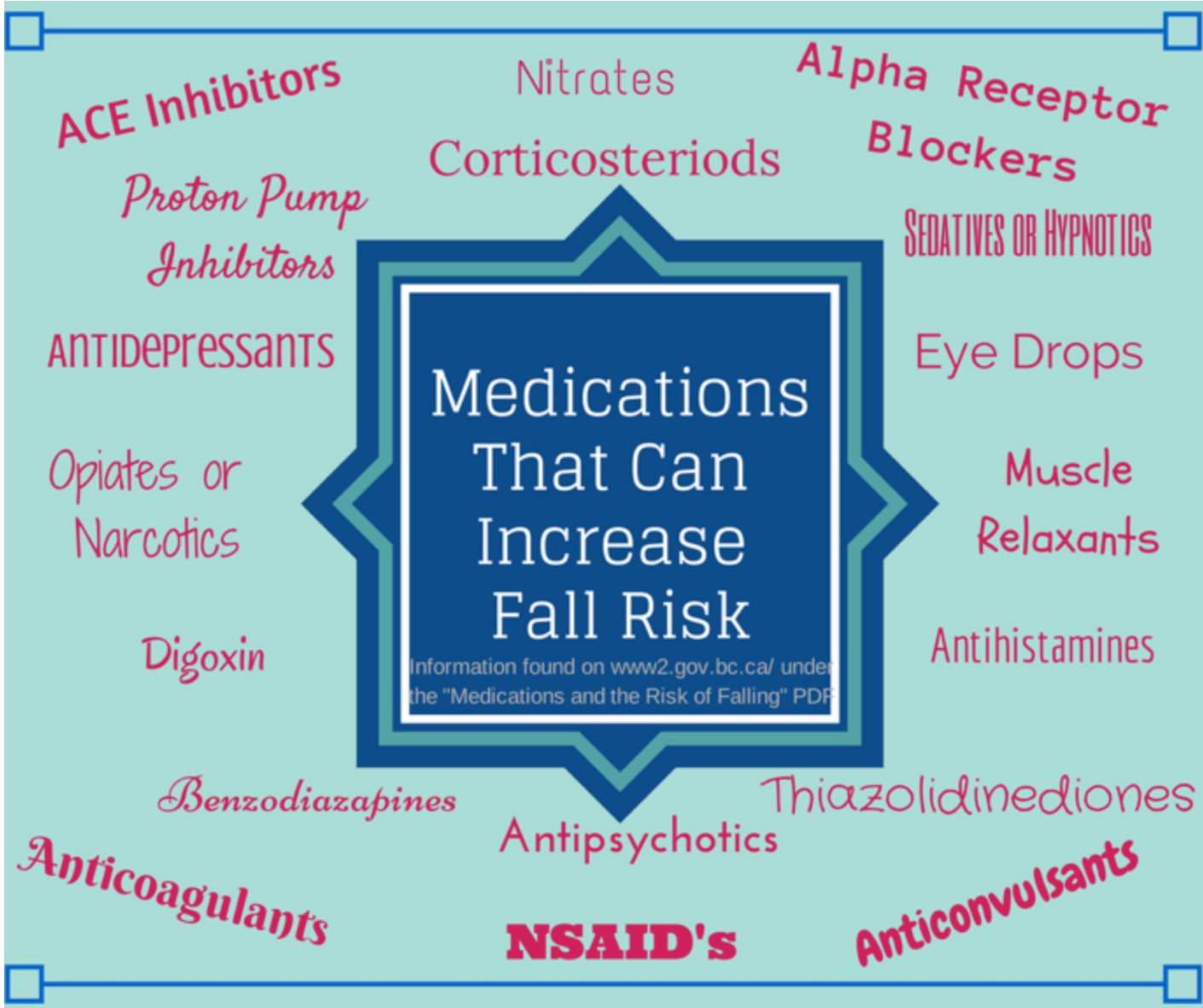


What YOU Can Do To Prevent Falls:

**Have your doctor or pharmacist review all medicines you take**

“My doctor and I talked about my medicines. One kind made me dizzy so he prescribed something else.”







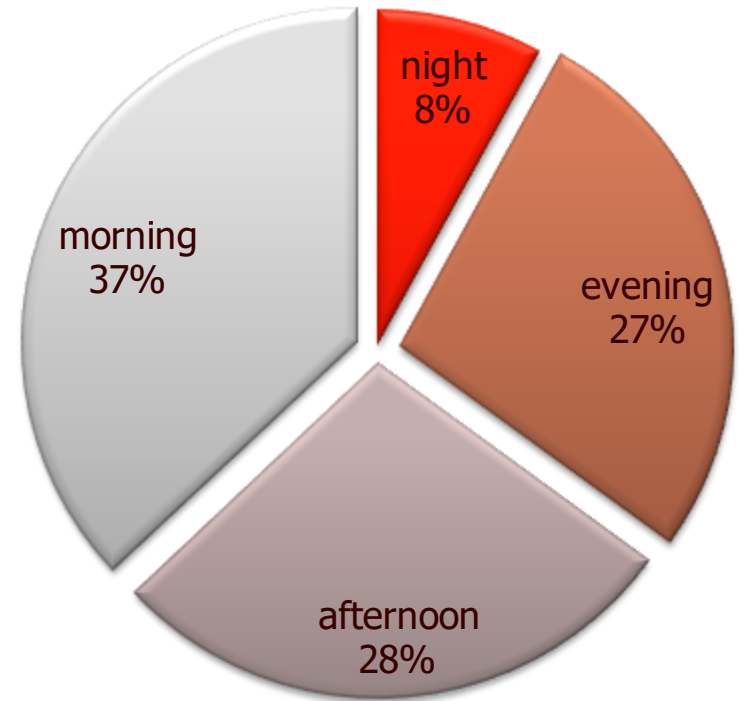
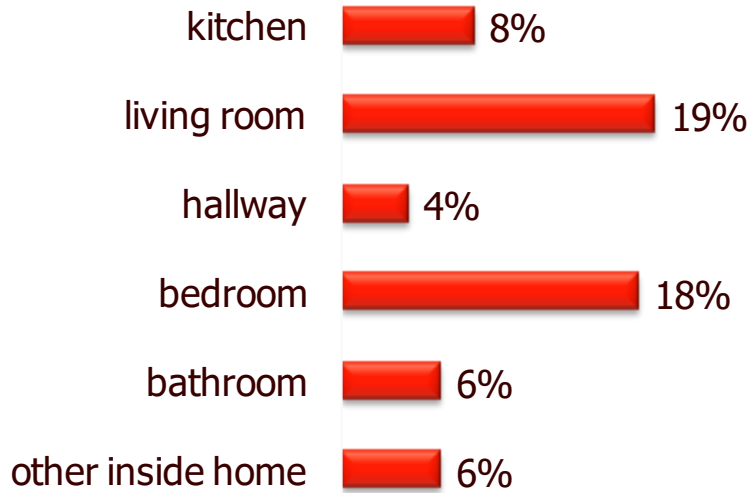
What YOU Can Do To Prevent Falls:

# Make your home safer



*"I'm glad I had handrails put on both sides of my stairs."*

# Percent of falls by location of occurrence



# To make your home safer

- ❑ Remove things you can trip over (like papers, books, clothes, and shoes) from stairs and places where you walk.
- ❑ Remove small throw rugs or use double-sided tape to keep the rugs from slipping.
- ❑ Keep items you use often in cabinets you can reach easily without using a step stool.
- ❑ Have grab bars put in next to your toilet and in the tub or shower.
- ❑ Use non-slip mats in the bathtub and on shower floors.
- ❑ Improve the lighting in your home. As you get older, you need brighter lights to see well. Hang light-weight curtains or shades to reduce glare.
- ❑ Have handrails and lights put in on all staircases.
- ❑ Wear shoes both inside and outside the house. Avoid going barefoot or wearing slippers.





# Safety Superheroes Program

-an intergenerational approach to fall prevention-

## SAFETY SUPERHEROES Preventing Grandparents From Falling



Crystal Stranaghan & Izabela Bzymek

Created to help kids and families learn how to keep their grandparents and loved ones safe from falls

### Are you ready to take the Safety Superhero Challenge?

Name 15 things you could do to make  
the house below safer,  
and to prevent possible falls.

Need a hint? Flip the page over...



### Safety Superhero Checklist What can YOU do to keep your grandparents safe from falls?

- Make sure you pick up and put away all your toys, books and games so that there's nothing on the floor for people to trip over.
- Wear safe indoor shoes instead of floppy inside slippers, and encourage your grandparents to do the same thing!
- Remove any loose carpets, especially if they bunch up at the edges or won't lie flat.
- Make sure bathroom things are easy to reach so you don't have to bend down, or climb up to reach them.
- Rake up any leaves, rocks or loose gravel on porches and paths in the yard so that no one can trip over them or lose their balance.
- Wipe up any spills right away. You don't want anyone to slip and fall!
- Get your parents to help you place a cordless phone near the bed so it's easy to reach.



# Safety Superheroes Program

-an intergenerational approach to fall prevention-



Burnaby Falls Prevention Society  fraserhealth

- 30 volunteers trained
- 13 delivered the program



- 9 elementary schools
- 62 classes (grades K – 5)

• 1290 students participated





**What YOU Can Do To Prevent Falls:**

**Begin a regular exercise program**

**“Exercise makes me stronger and helps me feel better.”**



**Get Up & Go!**

**Exercise Class**



# Tai Chi



# Tango





# WALK

YOUR WAY TO BETTER HEALTH

## Anatomy of Walking

**BOOSTS ENDORPHINS**  
EASING STRESS, TENSION, ANGER,  
FATIGUE, AND CONFUSION  
IN TEN MINUTES

**REDUCES  
GLAUCOMA RISK**

**HALVES  
ALZHEIMER'S DISEASE RISK  
OVER 5 YEARS**

**LIMITS SICKNESS**  
BY HALVING ODDS OF CATCHING A COLD

**IMPROVES HEART HEALTH**  
BY INCREASING HEART RATE  
AND CIRCULATION

**WORKS  
ARM &  
SHOULDER  
MUSCLES**

**IMPROVES  
BLOOD  
PRESSURE**  
BY FIVE POINTS

**ENGAGES  
AB MUSCLES**

**BUILDS BONE MASS,**  
REDUCING RISK OF  
OSTEOPOROSIS

**LIMITS COLON CANCER**  
BY 31% FOR WOMEN

**STRENGTHENS LEGS,**  
INCLUDING QUADRICEPS,  
HIP FLEXORS, AND HAMSTRINGS

**IMPROVES BALANCE**  
PREVENTING FALLS

**BURNS  
MORE FAT  
THAN JOGGING**

ONLY 30 MINUTES A DAY,  
5 TIMES A WEEK CAN MAKE YOU  
HEALTHIER AND HAPPIER.

**Every Body WALK!**  
The Campaign to Get America Walking

[WWW.EVERYBODYWALK.ORG](http://WWW.EVERYBODYWALK.ORG)



# Risk taking behaviour



# Awareness and Education

[www.findingbalancebc.ca](http://www.findingbalancebc.ca)

**STAYING INDEPENDENT**  
*Falls are the main reason why older adults lose their independence.*

**Are you at risk?**



 BRITISH COLUMBIA

What YOU Can Do



To Prevent Falls

您可如何



預防摔倒

 **fraserhealth**  
Better health. Best in health care.

 **fraserhealth**  
Better health. Best in health care.



# How to prevent hip fractures



# Calcium & Vitamin D

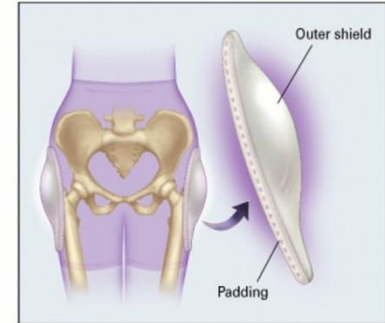
## Recommendation

- Calcium: 1500mg
- Vitamin D: 800-1000 IU



# Protective equipment

- Hip protectors





**Nothing is more valuable than your independence...**

**o why risk it?**