

Preventing Falls & Fall-Related Injuries

Falls & Injury Prevention
Fraser Health Authority



What is a fall?

An unintentional coming to rest on the ground, floor, or any other lower level, whether or not the person is injured

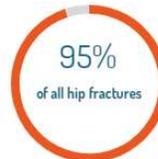
(World Health Organization, BC Ministry of Health, 2006)

Senior's Falls In Canada

FALLS are the **LEADING CAUSE OF INJURY** among older Canadians
1 in 3 seniors fall each year*

The good news is that falls are preventable!

FALLS CAUSE:



Over 40% of people admitted to **LONG TERM CARE** facilities are fallers.



*Older adults who need medical attention after a fall have a **70% chance of falling** again in the **next year!**

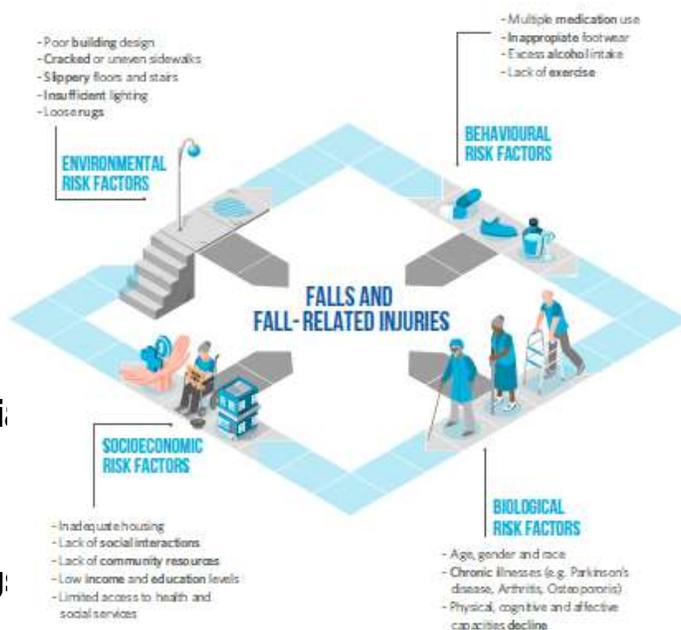


Of all falls causing a hospitalization happen at **HOME**

Risk Factors for a Fall

- **Biological**
 - Related to human **body**
- **Behavioural**
 - Related to individual **actions, emotions, choices**
- **Socioeconomic**
 - Related to **social and financial** situation
- **Environmental**
 - Related to one's **surroundings**

RISK FACTOR MODEL FOR FALLS IN OLDER AGE



Source: (WHO 2007b. *Age-friendly environments in Europe, A handbook of domains for policy action.*)

What Can You Do To Prevent Falls?



What YOU Can Do To Prevent Falls



- 01 VISION**
Have your eyes checked by an eye doctor 
- 02 MEDICATION**
Get a medication review
- 03 EXERCISE**
Reduce your risk by gaining strength and balance
- 04 HOME SAFETY**
Remove risk factors within your home

Common Vision Problems

Cataracts



Macular Degeneration



Glaucoma



Diabetic Retinopathy

Vision Interventions

Correct Vision



Clean Glasses



Lighting



Avoid multi-focal lenses



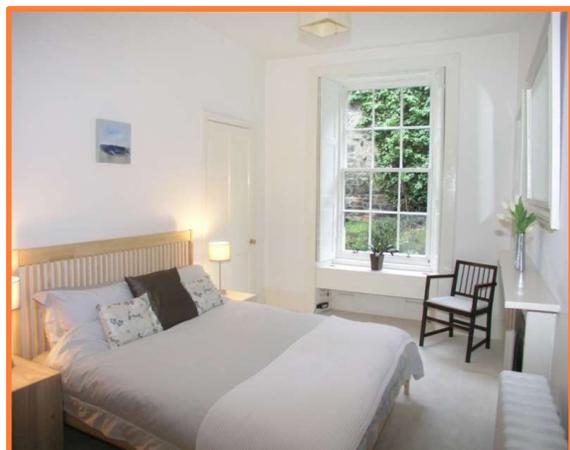
Use eye drops correctly



Modify environment



Which is easier to see?



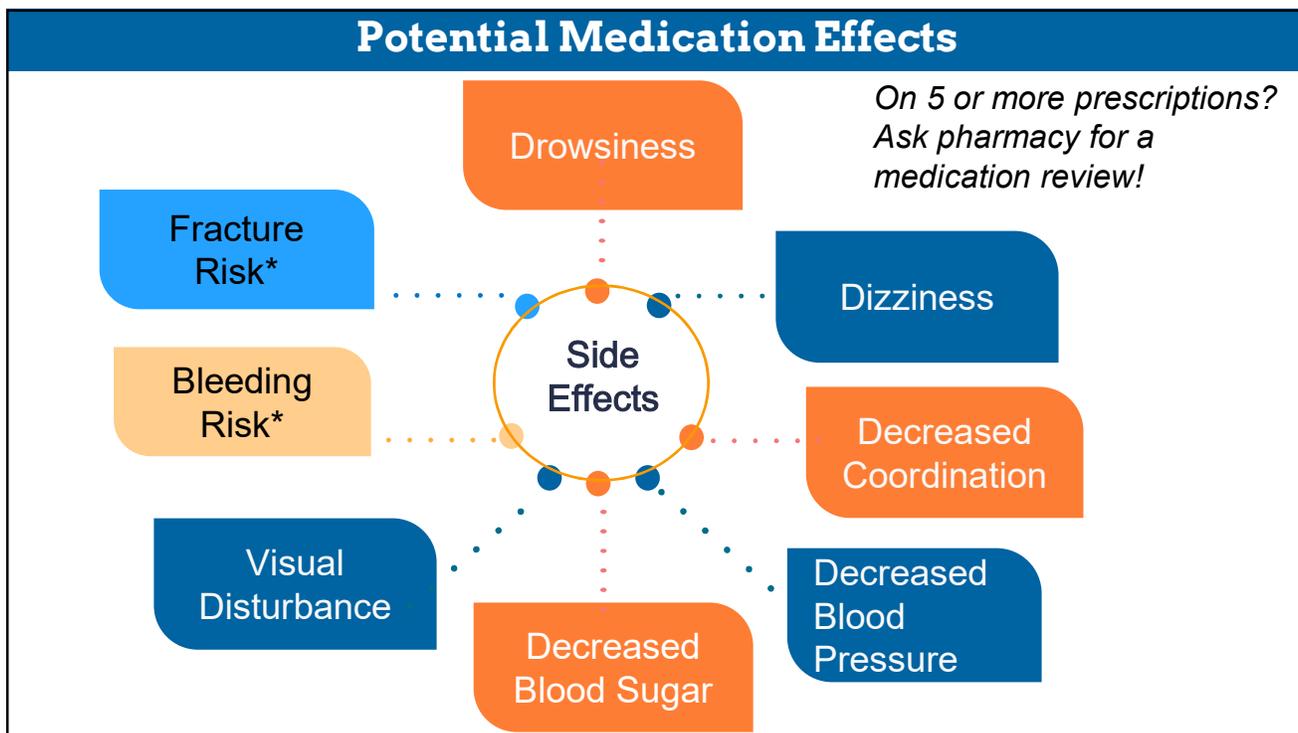
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Trick #1



Have your doctor take your blood pressure sitting and then standing!



If your blood pressure drops when you get up...

Trick #2

Pump your heels before standing!



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Calcium & Vitamin D



AGE	CALCIUM	VITAMIN D
4 to 8	1000 mg	600 IU
9 to 18	1300 mg	600 IU
19 to 50	1000 mg	400 - 1000 IU
50+	1200 mg	800 - 2000 IU

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8-1-1 HealthLinkBC

What is it?

8-1-1 is a **free** provincial health information and advice phone line available in BC.*

Connect with a **registered nurse, dietitian, exercise professional, or a pharmacist.***

**services vary by province*

Registered Nurses

- Can help with **non-emergency** health concerns, to discuss symptoms and procedures, and to recommend whether you should see a health care provider in person.

Registered Dietitians

- Can answer your healthy eating and nutrition questions.
- Also provide services for oncology and allergy nutrition.
- Available from 9am to 5pm Monday – Friday*

Pharmacist

- Can answer questions about your medications
- Available every night from 5pm to 9am*

Qualified Exercise Professionals

- Can answer your physical activity & exercise questions.
- Can prescribe physical activity and provide exercise advice or guidance to individuals of all ages and abilities.
- Available from Monday to Friday from 9am to 5pm*



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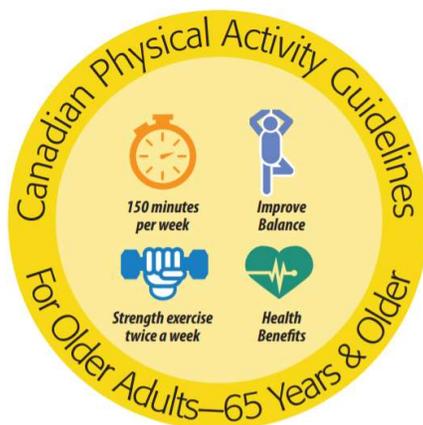
02 MEDICATION
Get a medication review

03 EXERCISE
Lower your risk by gaining strength and balance

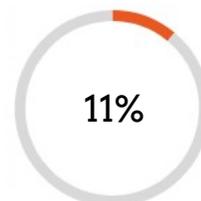
04 HOME SAFETY
Remove risk factors within your home

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Canadian Physical Activity Guidelines for 65+



Only 11% of Canadians meet this guideline!



Canadian Physical Activity Guidelines for 65+

A HEALTHY 24 HOURS INCLUDES:

PHYSICAL ACTIVITY	SEDENTARY TIME	SLEEP
 150 minutes per week of moderate to vigorous aerobic physical activities	 Limit sedentary time to 8 hours or less	 Get 7 to 8 hours of good-quality sleep on a regular basis
 Muscle strengthening activities at least twice a week	 No more than 3 hours of recreational screen time	 Consistent bed and wake-up times
 Several hours of light physical activities including standing	 Break up long periods of sitting as often as possible	
 Physical activities that challenge balance	Replacing sedentary behaviour with additional physical activity and trading light physical activity for more moderate to vigorous physical activity, while preserving sufficient sleep, can provide greater health benefits.	

What Does The Evidence Say?

“**Exercise** alone is as beneficial as a multifactorial falls prevention program”



Most Important for Falls Prevention:

- **Balance** activities: **DAILY**, **challenging** (e.g. Balance classes, Tai chi)
- **Strength** training: with **resistance**, **≥3x/ wk**
- **Balance & Strength** training can **reduce falls** by up to **50%**



Walking does **not** improve balance or strength! ☹️

BUT it **is** very important for your **health, mobility** and **brain!** 😊



Tips for Increasing Activity

Sit **SLOWLY!** (no plopping)



Practice **Balancing** while brushing teeth

Take the scenic route (park further away, take long way)



Go to exercise **classes** (e.g. TIME, FAME, Osteofit, etc.)

Exercise while waiting for kettle, toaster, etc.



Challenge a friend

Aim for **10 min of activity** at a time



Use an **activity tracker**

MOVE MORE, SIT LESS!

LET'S PRACTICE!



Slow Toe taps

(Can also be done sitting)



1. Stand facing the kitchen sink. Hold on with both hands.
2. Keep heel on floor and lift toes up. Hold. Relax.
3. Slowly repeat on the other foot.
4. Alternate, repeating 3 to 5 times with each foot.
5. Gradually increase until you can do this for 2 minutes.



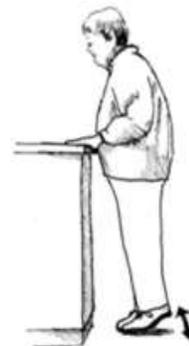
Progression: Gradually try to decrease the amount of support through your hands.

Up On Toes

(Can also be done sitting)



1. Stand facing the kitchen sink. Hold on with both hands.
2. Go up on toes with both feet.
3. Come down slowly.
4. Repeat 3 to 5 times if you can.
5. Gradually add one more repetition every few days until you can do this 15 times.



Progression: Gradually try to decrease the amount of support through your hands.

Walking On The Spot

(Can also be done sitting)



1. Stand facing the kitchen sink. Hold on with both hands.
2. Walk slowly on the spot for 10 seconds.
3. Gradually increase your time up to 2 minutes.

Progression: Begin walking in your home for 3 to 4 minutes without stopping. Use a mobility aid that you normally use for walking.



Alternate Leg Behind



Alternate Leg Behind

1. Stand facing the sink. Hold on with both hands.
2. Lift one leg behind you, keeping knee straight.
3. Return to starting position.
4. Repeat with other leg. Continue to alternate each leg, repeating 3 to 5 times with each. Gradually do one more every few days or week.

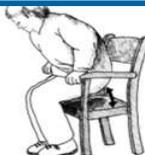
Progression: Gradually try to decrease the amount of support through your hands.



Sit To Stand/ Slow Sitting



1. Sit in a firm chair with arm rests. If needed, position your walker in front of you and lock the brakes. Bring your bottom a little closer to the front of the chair if needed.
2. Bring your feet in close to the chair. Put hands on armrests if needed.
3. Lean forward and stand up.
4. Stand tall for a few seconds, holding onto walker if needed for support.
5. Reach back to hold the armrests of the chair, lean forward, and slowly lower yourself to sit down.
6. Stand up and sit down 3 to 5 times. Do one more every few days or week until you can do 15 at a time.



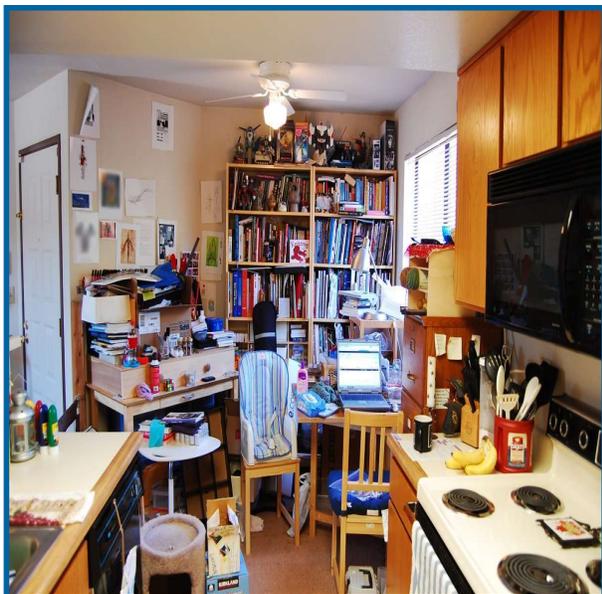
Progression: Gradually try to decrease the amount of support through your hands until you can stand up and sit down without using your arms.

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Try To Stay Organized



To Make Your Home Safer

Stay organized and **remove clutter & tripping hazards**



Use **non slip mats**, remove or secure throw rugs

Have **railings** at stairs and **grab bars** in shower



Consider other **equipment** for **bath safety & mobility**

Keep common items **within easy reach**, use safety stool



Good lighting is essential- especially **stairs & entry**. Use **night lights**.

Do not rush! Get up slowly and take your time



Use **safe footwear**. Avoid long loose clothing and floppy shoes

Safe Footwear

Choosing a Safe Shoe



Walking Aids



2-wheel walker

4-wheel walker



Hemi walker



Canes



Walking poles

Tips for Using Walking Aids

Use your **CANE** on opposite side to weak leg.



'**UP** with the good, **DOWN** with the bad'

Walking Aids should be about **wrist** height.



Stay **CLOSE** to your walker and **stand tall!**

Always **lock the brakes of your walker** before getting up/down.



Don't pull on walker to get up – push from chair

Make **space** in your home so you can move safely.



Walking poles can improve balance & stability.

Images from www.freepik.com

To Make Transfers Safer and Easier

Bath Lift

- Portable, convenient
- Expensive, not covered



Tub Transfer Bench

- Safe
- Bulky



Bed Rail

- Stable, effective
- Under mattress



Lift Chair

- Comfortable, various styles
- Expensive, not covered

Handy Bar

- Stable, effective
- Fits in door latch



Hip Protectors



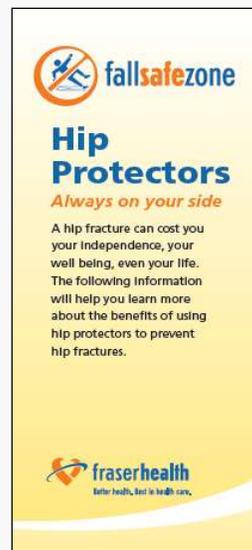
How do they work?

- Absorb impact and
- Divert force away from hip bone



Can hip fractures be prevented or reduced?

- **YES!**
- The chance of sustaining a hip fracture is reduced by up to **~70%** when wearing hip protectors!



Lifeline/ Personal Fall Alert

What is Lifeline?



- Personal emergency response service 'Help button'
- Works 24 hours a day, 7 days a week
- Waterproof – wear in shower!
- Comfort and reassurance for loved ones also
- In-home only vs anywhere (GPS)
- Consider automatic Fall Detection
- Service available in many languages
- Many brands available – beware of contracts!

Key Points

Falls can be serious but are often **PREVENTABLE!**



Get **Connected!** Learn about resources in your community.

Make your home safe!



Get your **medications** checked and **eyes** tested **every year!**

Move more, Sit less!



Balance and **strength** training are critical!

Many risk factors can be **corrected!** ↓**Risk** = ↓**Falls**



Your independence is important – **why risk it??**

Images from www.freepik.com

Fall Prevention Resources

Where to learn more:



- www.findingbalancebc.ca - Resources for people at risk of falling, exercise videos **coming soon** (Jan 2024)
- www.healthlinkBC.ca - (or call 811) to get health information and resources
- www.bc.211.ca - (or call 211) to find community resources (transportation, food, housing, advocacy, finances, etc.)
- Community Exercise Programs: Osteofit, TIME, FAME, Get Up & Go!, balance and strength programs, etc.
- www.parachute.ca - lots of fall prevention information