



**A Guide**

**To**

**Preventing Falls**

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City of Ottawa.  
Guide to Preventing Falls.

Thank You to Queensway-Carleton Hospital for sharing!

## **Falling is a very serious health Problem for seniors**

### **Did you know?**

- In Ottawa and across the country, one in three seniors fall each year. <sup>1</sup>
- Ninety per cent of broken hips in seniors are a result of a fall. <sup>2</sup>
- By the age of 75, falls are the major cause of fatal injuries. <sup>3</sup>
- Forty per cent of admissions to nursing homes are related falls. <sup>4</sup>
- For 1995, in Ottawa, costs associated to falls were \$86.7 million. <sup>5</sup>

### **Why do so many seniors fall?**

Usually falls have more than one cause. For example, someone who slips or falls on a slippery floor may have weak leg muscles and be experiencing dizziness as a side effect of medication.

This booklet reviews the causes of falls and recommends changes you can make in the following areas to prevent falling and injury:

- Exercise
- Medication
- Assistive devices
- Environmental hazards (surroundings inside and outside home)

1. Louglin & al. (1993) American Journal of Epidemiology.
2. Journal of American Medicine Association, 1989.
3. Zuckerman, J.D. (1996) New England Journal of Medicine.
4. Rawsky, E. (1998) Journal of Nursing Scholarship.
5. Injury Profile Eastern Ontario, 2000.

## **Exercise**

Inactivity, chronic disabilities such as diabetes, arthritis, abnormal blood pressure and changes associated with normal aging can lead to gait, balance disorders and loss of mobility. Regular physical activity and exercise will increase muscle strength, improve co-ordination and help to prevent falls.

### **Stay active to prevent falls:**

- Flexibility activities, e.g. Tai Chi or gardening
- Strength and balance activities, e.g. Climbing stairs.

### **What to do:**

- Talk to your doctor or Nurse Practitioner before you start an exercise program
- Tell your doctor about changes in balance.
- Avoid sudden changes in position.
- Use caution when bending down all the way to the floor, and avoid getting up quickly after stooping.
- Make sure the exercises you choose are beneficial for you.
- Look at the resource list on the last page for program ideas.
- Make your activities as enjoyable as possible. Find a buddy!
- Find out about exercise/activity programs for seniors in your area. Refer to the City of Ottawa Activity Guide or call 613-580-2400.

**Call 1-888-334-9769**  
**for a free copy of Canada's Physical Activity**  
**Guide for Older Adults**

## **Nutrition: For Healthy Strong Bones**

Calcium helps maintain your bone strength. A well balanced diet that includes a good supply of calcium is very important for keeping your bones strong. If your body does not get the calcium it needs from your diet, it will remove it from your bones. As you age, your body does not absorb calcium as well. This, in turn, increases your need for calcium-rich foods.

### **How much calcium is enough?**

Osteoporosis Canada recommends the following amounts of calcium every day to maintain strong bones.

**1000 – 1500 mg per day**

### **Which foods are best for calcium?**

<b>Milk &amp; Milk Products</b>	<b>Portion</b>	<b>Calcium</b>
Milk – 2%, 1%, skim, chocolate	1 cup	300 mg
Yogurt	$\frac{3}{4}$ cup	295 mg
Cheese-Cheddar, Edam, Gouda	1-1/4"/3 cm cube	245 mg
Ice Cream	$\frac{1}{2}$ cup	80 mg
Cottage cheese – 2%, 1%	$\frac{1}{2}$ cup	75 mg
<b>Fish and Alternatives</b>		
Sardines, with bones	$\frac{1}{2}$ can/55 g	200 mg
Salmon, with bones-canned	$\frac{1}{2}$ can/105g	240 mg
Fortified orange juice	1 cup	300 mg
Molasses, blackstrap	1 tbsp	180 mg
<b>Combination dishes</b>		
Lasagna	1 cup	285 mg
Soup made with milk, such as cream of chicken, mushroom or celery	1 cup	175 mg

### **Vitamin D**

A diet low in Vitamin D is linked to reduced calcium absorption. For individuals with limited sun exposure and a decreased intake of milk and margarine, a vitamin D supplement is recommended.

**A supplement with 1000 International Units (IU) is recommended per day.**

# Medication

## Seniors are more at risk of falls if they take:

- Four or more medications daily (prescribed and non-prescribed)
- Medications to help them sleep or calm their nerves (sedatives). American Journal of Epidemiology, 1990

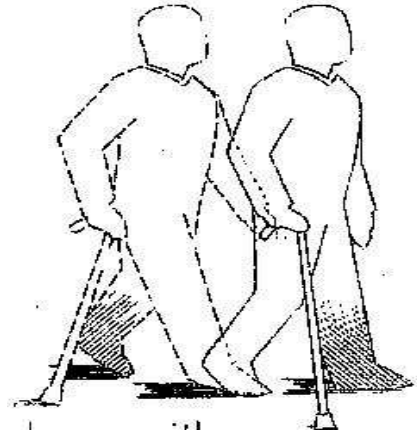
**Warning:** Side effects of medications such as dizziness or feeling light-headed can also increase your risk of falling. Some medications react with others and this may increase the side effects.

## What to do:

- Review **all** your medications with your doctor **every six months**.
- Ask your doctor, nurse or pharmacist about the side effects of the medication you take.
- Take medications correctly as indicated. Consider using a medication box.
- Tell your doctor if your medication makes you dizzy or light headed.
- Avoid taking alcohol with medications.
- Talk to your pharmacist before you take non-prescription, over-the-counter and herbal remedies.
- Never take someone else's medication.
- Instead of taking medication to help you sleep, consider alternatives such as listening to soft music, reading relaxation exercises, or drinking warm milk.
- Talk to your doctor if insomnia persists.
- Keep a list or record of all your medications with you at all times.
- Shop at one pharmacy to have all your prescriptions filled.
- Return all expired medications to your pharmacist.

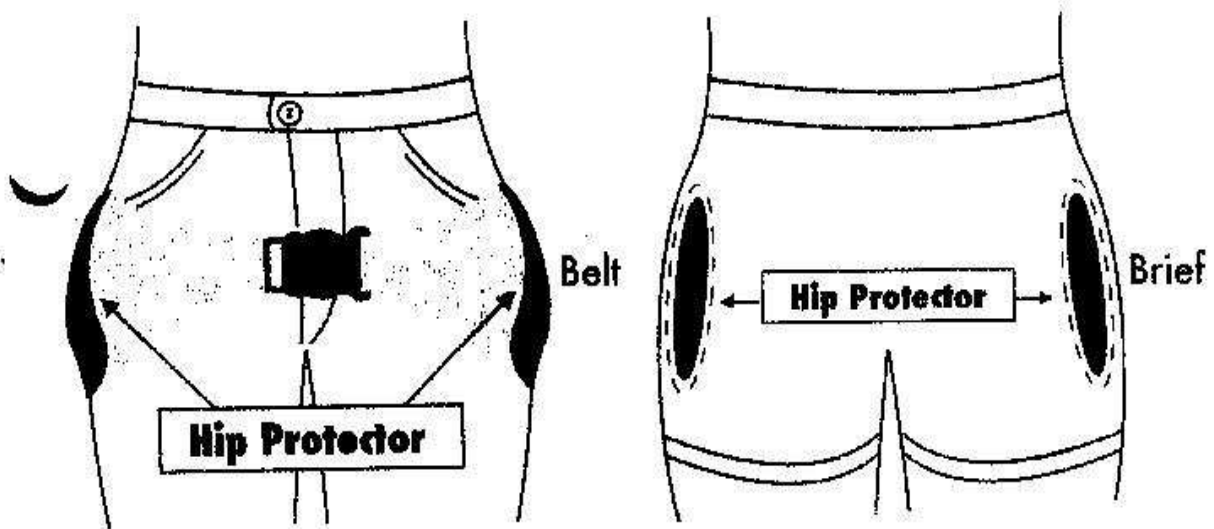
### Learn to use a cane correctly:

- Always hold your cane on your strongest side.
- If you have a “bad” leg (weak or painful) Hold the cane opposite the “bad” leg.
- Always move the cane and the opposite leg together.
- To go up the stairs, take the first step up with your strong leg. Then, move the cane and the “bad” leg to the same step.
- To go down the stairs, take the first step down with the cane and the “bad” leg. Then, lower the strong leg to that same step.



### Consider wearing hip protectors:

A hip protector is a lightweight belt or pant with shields to guard the hips (head of the thighbone) against fractures and give added confidence. They may be purchased at a Home Health Services and Supplies store. (See Yellow Pages in phone book).



Hip Protector graphics taken with permission “*Tools for Living Well*”  
University of Ottawa and the Canadian Association of Occupational Therapists.

### **Use a walker for safer travels:**

- Have your walker adjusted to your height (see cane height, page)
- Roll the walker forward as you take steps standing straight into the centre of the walker.

### **Learn to use the hand brakes correctly.**

#### **To sit on the seat of the walker:**

- Lock the brakes firmly in place.
- Turn around slowly; transfer one hand to the opposite walker handle
- Keep hands on both handles as you sit down.

### **When standing up from a chair or bed with your walker:**

- Position walker in front of you and lock the brakes.
- Push up from the bed or chair; the walker could tip if you pull on it.
- Unlock brakes before you start walking.

### **To transfer to a chair or bed with your walker:**

- Walk to the chair or bed and turn around using the walker.
- Back-up to the chair or bed until the back of your legs touch the seat.
- Lock the brakes; reach for chair armrest or bed for support and sit down.

**Hardware stores, department stores,  
Medical equipment stores, drug stores and  
Specialty stores may have useful  
Devices to help make daily activities  
Easier and safer.**

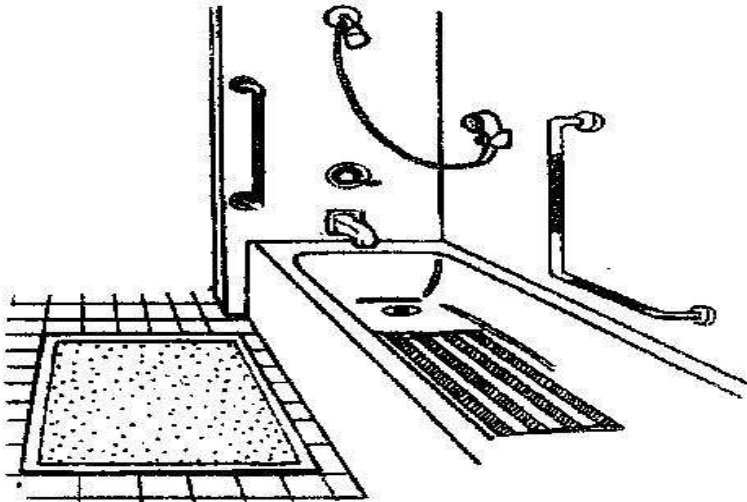
## **Assistive Devices**

Devices such as canes, grab bars, handrails, hip protectors and walkers can really help prevent falls and reduce the risk of injuries. Individuals with balance and mobility problems are encouraged to use assistive devices for daily activities.

### **Assistive devices can make your bathroom safer:**

- Use a long rubber bath mat inside your tub.
- Consider professional installation of grab bars in the tub area by a vendor.
- If getting into or out of the tub is difficult, consider buying a bath seat and hand held shower or getting help with bathing.
- If sitting or getting up from the toilet is difficult, consider buying a raised toilet seat and/or installing a grab bar.

**Consider consulting an Occupational Therapist through Home Care for professional assessment and recommendations.**



## **Use of a cane**

### **Is it the right height for you?**

- Turn the cane upside down and put the handle on the floor.
- Stand with your arms at your sides.
- The tip of the cane should be at the level of your wrist.

### **To adjust a wood cane:**

- Turn the cane upside down, mark the cane at the level of your wrist.
- Remove the rubber tip.
- Have the cane cut ½ inch shorter than where you marked it.
- Replace rubber tip.

### **To adjust an aluminum cane:**

- Most aluminum canes can easily be adjusted within an inch of the desired height.

**Remember to replace worn rubber tips on your cane and do not forget to attach a new ice pick in the winter.**

## **Hazards in and around your home**

Unsafe surroundings contribute to 30 per cent of both indoor and outdoor falls. \*Poor lighting, unsafe footwear and icy sidewalks are just a few of the environmental hazards that cause people to fall.

\*Baseline Data, Ottawa-Carleton Falls Research Project, 1994.

### **What to do:**

- Identify unsafe areas inside and outside your home.
- Complete the checklist on the following pages
  - Your risk of falling increases with the number of hazards identified with a **No** answer.
- Start today to make changes to reduce the hazards in your home.
- Report hazards outside your home to the proper authorities.
  - In an apartment building, store or restaurant, contact the owner or manager.
  - In a shopping mall, contact the mall authority.
  - On city streets or sidewalks, call the City of Ottawa at 613-580-2400

**Falls Can Be Prevented**

# Check list

**Yes**

**No**

## Throughout your home

Floors are not slippery. Spills are wiped up promptly.	<input type="checkbox"/>	<input type="checkbox"/>
Pathways are clear of extension cords and other objects.	<input type="checkbox"/>	<input type="checkbox"/>
Rugs have no ripples or tears.	<input type="checkbox"/>	<input type="checkbox"/>
Scatter mats are removed or securely taped to the floor.	<input type="checkbox"/>	<input type="checkbox"/>
Low tables are removed from the middle of the living room.	<input type="checkbox"/>	<input type="checkbox"/>
All furniture is sturdy.	<input type="checkbox"/>	<input type="checkbox"/>
Chairs have armrests and are the correct, comfortable height.	<input type="checkbox"/>	<input type="checkbox"/>
All light fixtures have a minimum of 60 watt bulbs. Good light is installed in and around the house.	<input type="checkbox"/>	<input type="checkbox"/>
Entrance to every room has a light switch.	<input type="checkbox"/>	<input type="checkbox"/>
Stepladders or step stools are <b>never</b> used.	<input type="checkbox"/>	<input type="checkbox"/>
Items used every day are stored within easy reach.	<input type="checkbox"/>	<input type="checkbox"/>
Exterior stairs are kept free of ice and snow. Sprinkle non-clumping cat litter or salt/sand mix.	<input type="checkbox"/>	<input type="checkbox"/>

# Check list

**Yes**

**No**

## Entrance

- |   |                          |                          |
|---|--------------------------|--------------------------|
| Doors open easily.  | <input type="checkbox"/> | <input type="checkbox"/> |
| There is a sturdy seat with armrests.                                 | <input type="checkbox"/> | <input type="checkbox"/> |
| Mail is within easy reach.  | <input type="checkbox"/> | <input type="checkbox"/> |
| Exterior and interior lighting is good.                               | <input type="checkbox"/> | <input type="checkbox"/> |
| Outside pathways are free of lawn furniture, hoses and other objects. | <input type="checkbox"/> | <input type="checkbox"/> |

## Stairs (inside and outside)

- |  |                          |                          |
|--|--------------------------|--------------------------|
| Stair edges are marked with contrasting colour.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| All steps are the same height and the same depth.                            | <input type="checkbox"/> | <input type="checkbox"/> |
| Stairs are well lit with a light switch at the bottom and top of the stairs. | <input type="checkbox"/> | <input type="checkbox"/> |
| Stairs have a non-slip surface and are in good repair.                       | <input type="checkbox"/> | <input type="checkbox"/> |
| Handrails are well attached and present on BOTH sides of stairs.             | <input type="checkbox"/> | <input type="checkbox"/> |
| Handrails are at the height of 36 to 39 inches or 90 cm (1m).                | <input type="checkbox"/> | <input type="checkbox"/> |
| Handrails extend 12 inches beyond top and bottom steps.                      | <input type="checkbox"/> | <input type="checkbox"/> |
| Your hand should wrap around two-thirds of handrail.                         | <input type="checkbox"/> | <input type="checkbox"/> |
| Stairs are free of clutter or any objects at all times.                      | <input type="checkbox"/> | <input type="checkbox"/> |

# Check list

**Yes**

**No**

## Bathroom

- |  |                          |                          |
|--|--------------------------|--------------------------|
| Bathtub plug is easy to reach and to use.                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| Full-length rubber bathtub mat is used for every bath or shower.               | <input type="checkbox"/> | <input type="checkbox"/> |
| There are at least two grab bars in the tub area.                              | <input type="checkbox"/> | <input type="checkbox"/> |
| Portable grab bars (on the side of the tub) do not move when used for support. | <input type="checkbox"/> | <input type="checkbox"/> |
| Rug outside the bathtub has a rubber backing.                                  | <input type="checkbox"/> | <input type="checkbox"/> |

## If you have problems getting into or Out of the bathtub:

- |                            |                          |                          |
|----------------------------|--------------------------|--------------------------|
| Use a bath seat.           | <input type="checkbox"/> | <input type="checkbox"/> |
| Use a hand-held shower.    | <input type="checkbox"/> | <input type="checkbox"/> |
| Ask for help with bathing. | <input type="checkbox"/> | <input type="checkbox"/> |

## If you have problems sitting on or getting up from the toilet:

- |                                      |                          |                          |
|--------------------------------------|--------------------------|--------------------------|
| Use a raised toilet seat.            | <input type="checkbox"/> | <input type="checkbox"/> |
| Use a grab bar conveniently located. | <input type="checkbox"/> | <input type="checkbox"/> |

## Check list

**Yes**

**No**

### Bedroom

- |   |                          |                          |
|---|--------------------------|--------------------------|
| A telephone is easily reached from the bed.             | <input type="checkbox"/> | <input type="checkbox"/> |
| A lamp and flash light are easily reached from the bed. | <input type="checkbox"/> | <input type="checkbox"/> |
| The bed is the correct height (90 degree knee bend)     | <input type="checkbox"/> | <input type="checkbox"/> |

### Personal habits

- |   |                          |                          |
|---|--------------------------|--------------------------|
| I move slowly after lying or sitting to prevent dizziness and sit on the side of the bed a few minutes before I stand.                  | <input type="checkbox"/> | <input type="checkbox"/> |
| I do not hurry.   | <input type="checkbox"/> | <input type="checkbox"/> |
| I remove my reading glasses when using the stairs.  | <input type="checkbox"/> | <input type="checkbox"/> |
| I always wear well-fitted shoes or slippers with closed back and low heels and non-slip soles.  | <input type="checkbox"/> | <input type="checkbox"/> |
| I do not use bath oil and I use liquid soap to avoid bending for a bar of soap.   | <input type="checkbox"/> | <input type="checkbox"/> |
| I do not wear long skirts, long house coats or loose slacks that I might trip on or step on.  | <input type="checkbox"/> | <input type="checkbox"/> |
| I turn on a night-light before I go to bed.   | <input type="checkbox"/> | <input type="checkbox"/> |
| I turn on a light when I get up at night.   | <input type="checkbox"/> | <input type="checkbox"/> |
| I avoid using a ladder or step stool and ask someone to help to reach high objects.   | <input type="checkbox"/> | <input type="checkbox"/> |
| Living alone, I use a Personal Emergency Response calling Service or I buddy with a neighbour, family or friend for a daily phone call. | <input type="checkbox"/> | <input type="checkbox"/> |

# Resource list

Ottawa Public Health  
Injury Prevention Team  
Ginette Asselin, Public Health Nurse  
613-580-6744 ext. 26236

[Ginette.Asselin@ottawa.ca](mailto:Ginette.Asselin@ottawa.ca)

Community Health Research  
Unit/University of Ottawa  
[www.falls-chutes.com](http://www.falls-chutes.com)

Health Canada:  
[www.hc-sc.gc.ca/seniors-aines](http://www.hc-sc.gc.ca/seniors-aines)

Canadian Centre for Activity  
and Aging-Home Support Exercise  
Program: [www.uwo.ca/actage](http://www.uwo.ca/actage) or  
519-661-1612

Exercise to prevent falls...A Winning  
Formula for Older Adults-Video \$10  
Peteborough County City Health Unit  
705-743-1000

Active Living Coalition for Older Adults:  
[www.alcoa.ca](http://www.alcoa.ca)

Active Seniors Program  
For Older Adults manual and  
Audiocassette \$20  
Ottawa Public Health  
613-580-6744, ext. 23766

Exercise: A Guide from the  
National Institute on Aging:  
[www.nia.nih.gov/exercisebook](http://www.nia.nih.gov/exercisebook)

Osteoporosis Society  
Bone Smart Video #35  
Be Taller, Stronger, Longer!  
Booklet: \$4.28  
1-800-463-6842

Positive Steps; booklet, audio  
cassette and video \$15  
booklet \$3: 1-306-766-7731

Celebrate Active Living:  
Gentle Exercises for People with  
Arthritis Video \$10, Arthritis Society  
of Canada: 1-800-321-1433

Growing Stronger: Strength  
Training for Older Adults:  
[www.cdc.gov/nccdphp/dnpa/  
physical/growing\\_stronger](http://www.cdc.gov/nccdphp/dnpa/physical/growing_stronger)

Taoist Tai Chi for seniors:  
613-233-2318

Canada Mortgage and Housing  
Corporation (CHMC)  
1-800-668-2642 [www.chmc-schl.gc.ca](http://www.chmc-schl.gc.ca)

Falls Clinic Elisabeth Bruyere  
613-562-6351  
[www.scohs.on.ca](http://www.scohs.on.ca)

Community Care Access Centre of  
Ottawa (CCAC)  
613-745-5525

## **Financial assistance for assistive Devices or aids:**

Assistive Devices Program (Ontario)  
1-800-268-6021

Veterans Affairs Canada, Ottawa  
Office: 613-998-9460

City of Ottawa, Employment and  
Financial Assistance, 65 years and  
Older: 613-560-6000

**Additional information is from:  
Ottawa Public Health Information: 613-580-OPHI (6744)**