

SUMMERVILLE

Family Health Team

Healthy Aging: Falls Prevention

Prepared: June 2, 2021

Presenters

Nurse Practitioner: Tara Jagt, MScN, FNP

Social Worker: Rosie Vujcic, MSW, RSW

In partnership with Summerville Family Health Team and Peel Senior Link

Privacy statement

- This session is reserved for the sharing of less sensitive information including educational materials relating to healthy aging and falls prevention.
- Virtual sessions do have some inherent privacy and security risks:
 - There is a chance your personal log-in information may be intercepted or unintentionally disclosed.
 - It is possible that there could be problems with the technology and your session could be cut short and/or interrupted.
- Please note: We will not be recording the session and ask that you also not record the session.



Zoom protocol

- Your participation is encouraged! Please speak up when invited and feel free to ask a question verbally.
- Otherwise, please keep your microphone muted unless you would like to share.
- Please feel welcome to use the Chatbox – type in your question and choose to send to “everyone” or direct it to the facilitator.



Objectives



HEALTHY AGING
DEFINED



FALLS AND THE FACTORS
THAT INFLUENCE FALLS



PREVENTING FALLS

Healthy aging defined

- The process of developing and maintaining the functional ability that enables wellbeing in older age
- A process of adaptation to the changes that occur throughout an individual's life including physical, mental and social wellbeing



SUMMERVILLE

Family Health Team

Falls and the factors that influence falls





What is a fall?

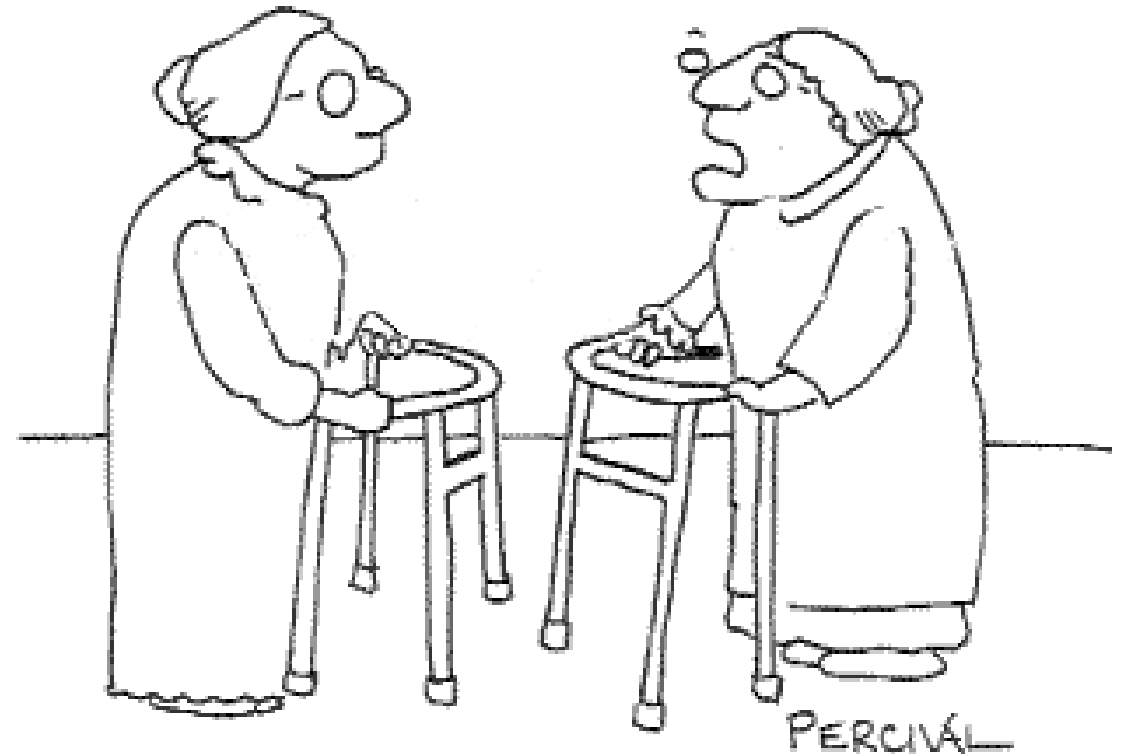
Falls defined

A **fall** is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level. Fall-related injuries may be fatal or non-fatal, though most are non-fatal.



Falls and the factors that influence falls

Is falling a normal part of the aging process?



"The trouble with today's generation is that they can't stand on their own two feet."

SUMMERVILLE

Family Health Team



- 20-30% of Canadian seniors experience a “**serious fall**” each year
- Falls remain the leading cause of injury related hospitalizations among Canadian seniors^{*}
- In the United States: 36 million seniors fall each year
3 million hospital visits
32,000 deaths[^]

^{*}Public Health Canada. (2014). Senior’s Falls in Canada: Second Report.

[^]Centers for Disease Control and Prevention. (2020). Keep on Your Feet- Preventing Older Adults Falls.

Financial cost

- In Canada, falls cost an estimated \$2 billion annually
- Seniors 3.7 times greater rate than younger adults *
- Each year 85% of seniors hospitalized for injury are the result of falls ^



*Public Health Canada. (2014). Senior's Falls in Canada: Second Report.

^Statistics Canada. (2015). Understanding seniors' risks of falling and their perception of falling.

Health conditions that increase the risk of falling

- Arthritis
- Obesity
- Multiple medications
- Hypertension
- Diabetes
- Anxiety/fear of falling
- Depression
- Sleep disorders/disordered sleep
- Osteoporosis/osteoarthritis
- Dementia
- Back and neck pain
- Cataracts
- Hearing loss
- Functional limitations- gait changes muscle stiffness, deconditioning
- Low BMI/weight loss
- Precarious nutrition
- Low muscle mass/strength
- Low Vitamin D

★ Most falls can be prevented. ★

- Symptoms of malnutrition and dehydration:
 - Fatigue
 - Dizziness
 - Irritability
 - Loss of muscle mass
 - Impulsivity
 - Poor judgment *
- In 2008/2009, 34% of Canadians aged 65 or older were at nutritional risk
- Nutrition interventions decrease risk of falls^



*Julius, M., et. al. (2017). Malnutrition as a Fall Risk Factor. U.S. National Library of Medicine. NCBI National Center for Biotechnology Information 34(2): pp.27-30

^Statistics Canada. (2015). Understanding seniors' risks of falling and their perception of falling.

Depression

- Depression is not a normal part of aging
- 10 to 15% of seniors suffer from depression in Canada
- Depression is almost 2x more common in older women than men

Comfort Keepers. (2021). [Anxiety Disorders in Canada's Seniors.](#)



SUMMERVILLE

Family Health Team



- 14% of Canadian seniors report depression, anxiety and other mental health problems



Fear of falling

- Fear of falling can limit an older person's activity and independence
- One third of Canadians aged 65 and older are concerned about a future fall
- In seniors aged 65 and older who perceived a personal risk of falling, 44% stopped doing some of the activities they did previously



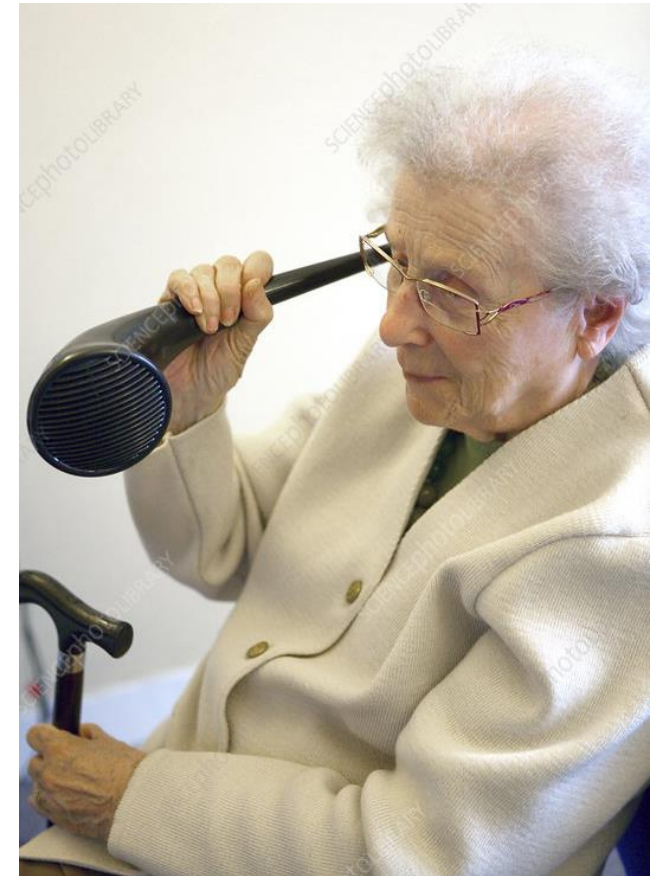
Disordered sleeping

- Impaired balance and reduced reaction time, increases one's risk for a fall
- Medications can increase one's chances of having a fall
- Lack of sleep: inattentiveness
 memory disturbances
 lowered cognitive function



Vision and hearing

- Approximately 30% of adults over age 65 will fall
- Impaired vision more than doubles this risk*
- Mild hearing loss triples risk of accidental fall^




*Health in aging. (2018). Having Poor Vision Can Raise Risk For Falls Among Older Adults. Journal of the American Geriatric Society, November 18.

^Shapiro, P. (2019). Hearing loss and the increased risk of falls.

SUMMERVILLE

Family Health Team

Medications



Review your medication with your
doctor, nurse practitioner or
pharmacist

Sedentary = Deconditioning

- Sedentary lifestyle involves little or no physical activity
- Risks of sedentary life styles:
 - obesity, type 2 diabetes, cardiovascular disease, some types of cancer
- Deconditioning:
 - inactivity and/or sedentary lifestyle and/or bedrest
- If immobilized because of a need for bed rest, seniors can experience 5% muscle strength loss per day
- Mobility devices are an important method to maintain mobility

Preventing falls: Home Exercise

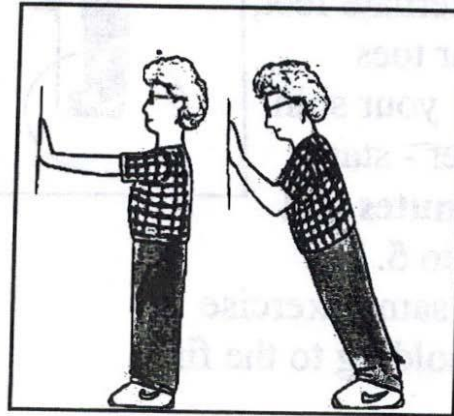
Exercise 1 - Walking

- a) Start with walking on the spot for **2 minutes**, progress to **5 minutes**
- b) Walk briskly around your home on a pre-designated route for **5 minutes** increase the walking time weekly.



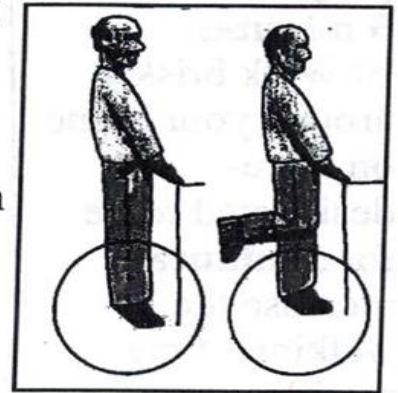
Exercise 2 - Wall push ups

Hands on the wall at shoulder height- feet flat on floor 2 - 3 feet away. Keep legs straight, don't bend at hips. Bent arms to move hips forward. Start with **5 repetitions** and progress to **15**.



Exercise 3 - Rising up on toes

- a) Stand facing a counter (chair back or sink) and rest hands lightly on the surface. Rise up on your toes and hold, lower slowly to starting
- b) Standing on one foot with the other leg bent, rise up on your toes and hold, slowly complete **5 repetitions** and progress to **15**. Do the same with the other leg.



Exercise 4 - Toe taps

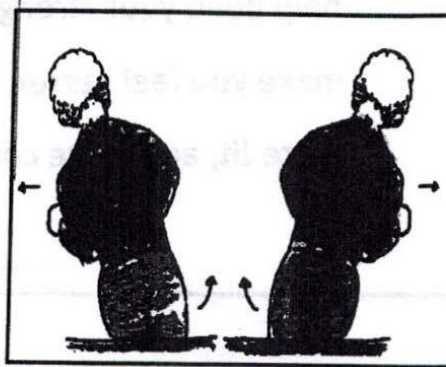
a) With your hands resting lightly on a firm surface and using alternate feet, raise your toes towards your shin and lower - start for **2 minutes** and progress to **5**.



b) Do the same exercise without holding to the firm surface.

Exercise 5 - Seat walks

Sitting on a firm chair, lift one hip while raising the knee on the same side over the other knee and then return to starting position.

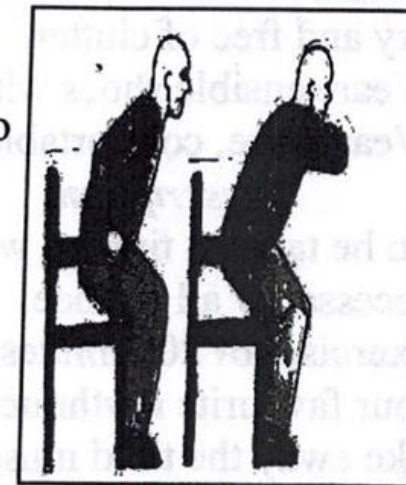


Do the same to the other side and repeat alternately for **2 minutes** progressing to **5**.

Exercise 6 - Rising from a chair

Using a firm chair with arms - plant feet firmly on the floor, hands on the arms of the chair and stand up.

Start with **5 repetitions** and progress to **15**. Do the same exercise without using the arms of the chair - start with **5**

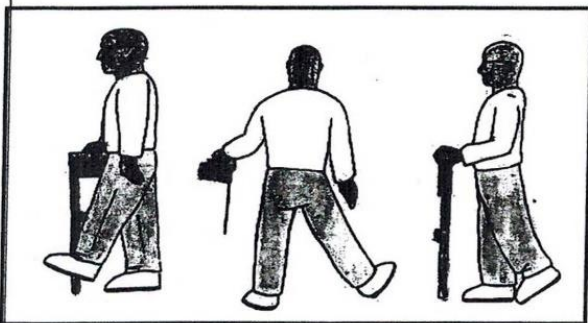


repetitions and progress to **15**.

Home Exercise

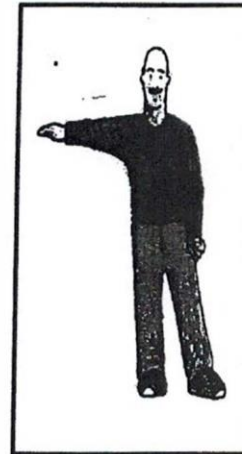
Exercise 7-Leg lifts

Holding lightly to a firm surface with one hand, raise the leg on the free side (with straight knee) to the front and down again for **5 repetitions**. Lift the leg to the side and down again for **5 repetitions**, face the surface and raise the leg backwards down again for **5 repetitions**. Be sure to do the same on both sides and progress to **15 repetitions** with each leg.



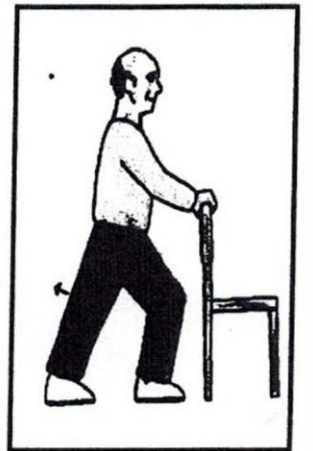
Exercise 8 -Reaching

Stand with feet a comfortable distance apart. With one-arm reach up and then out as far as you can. Begin with **5 repetitions** and progress to **15**. Do the same stretch on the other side.



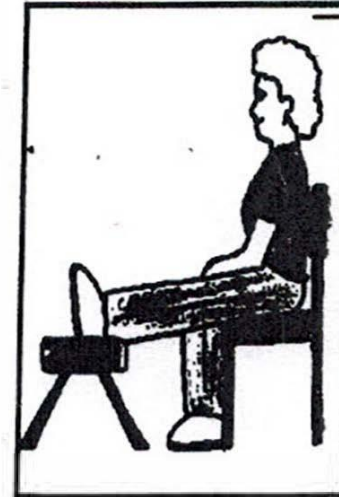
Exercise 9-Standing stretch

Stand behind and hold gently to the back of a firm chair. Leave the front foot close to the chair and move the back leg a couple of feet backwards. Straighten the knee of the back leg and slightly bend the knee of the front - hold for **10 seconds** with each leg. Progress to **30 seconds**.



Exercise 10-Seated stretch

Sit on a firm, straight-backed chair, with one foot on the floor and the other leg stretched in front resting on a footstool. Hold the position for **10 seconds**. Repeat with the other leg. Progression- hold for **30 seconds**.



Recommendations

- Talk to your health provider: ensure starting a new activity is safe
- Talk to your family members
- Keep your home safe
 - remove tripping hazards, add handrails, check lighting, bath rails, bath mats, etc.
- Vision and hearing check
- Wear proper shoes
- Find a good home exercise program
- Make sure you are performing home exercises in a safe manner and in a safe space

Resources:

- Summerville FHT website <https://www.summervillefht.com>
- Peel Senior Link: <https://peelseniorlink.com>
- [Comfort Keepers : Anxiety Disorders in Canada's Seniors](https://www.comfortkeepers.ca/anxiety-disorders-in-Canadas)
<https://www.comfortkeepers.ca/anxiety-disorders-in-Canadas>
- Canadian seniors and mental health | CIHI
<https://www.cihi.ca/en/canadian-seniors-and-mental-health>
- Regina Qu' Appelle Health Region : Positive steps Falls Prevention and Exercise Program including easy exercise for maintain strength , balance and mobility [CEAC 3023 Cover&TP.pub \(rqhealth.ca\)](#)
- National Falls Prevention Resource Center : <http://www.ncoa.org/center-for-healthy-aging/falls-resource-center/>

Canadian Institute for Health Information (2017). Canadian Seniors and Mental Health. Retrieved from <https://www.cihi.ca/en/canadian-seniors-and-mental-health>

Canadian Physiotherapy Association. (2021). Don't sit still: the negative effects of immobility. Retrieved from <https://physiotherapy.ca/blog/dont-sit-still-negative-effects-immobility>

Centre for Addiction and Mental Health (2014). Depression an Information Guide. Retrieved from <https://www.camh.ca/-/media/files/guides-and-publications/depression-guide-en.pdf>

Centers for Disease Control and Prevention (2020). Keep on Your Feet- Preventing Older Adults Falls. Retrieved from <https://www.cdc.gov/injury/features/older-adult-falls/index.html#:~:text=About%2036%20million%20older%20adults,bones%20or%20a%20head%20injury.>

Comfort Keepers(2021). Anxiety Disorders in Canada's Seniors. Retrieved from <https://www.comfortkeepers.ca/anxiety-disorders-in-canadas->

Comfort Keepers (2021). Depression in Canada's Seniors. Retrieved from <https://www.comfortkeepers.ca/?s=depression>

Gills, A., MacDonald, B. (2005) Deconditioning in the hospitalized elderly. Canadian Nurse, 101(6), 16-20. Retrieved from <https://pubmed.ncbi.nlm.nih.gov/16121472/>

Hallford, D., Nicholson, J., Sanders, G., McCabe, K., Marita, P. (2017). The Association between anxiety and Falls: A Meta-Analysis. The Journals of Gerontology, 72(5), pp.729-741 Retrieved from <https://academic.oup.com/psychsocgerontology/article/72/5/729/2632018?login=true>

Health in aging. (2018). Having Poor Vision Can Raise Risk For Falls Among Older Adults. Journal of the American Geriatric Society, November 18. Retrieved from <https://www.healthinaging.org/blog/having-poor-vision-can-raise-risk-for-falls-among-older-adults/>

Kandola, A. (2018). What are the consequences of a sedentary lifestyle? Medical News Today, August 29, 2018. Retrieved from <https://www.medicalnewstoday.com/articles/322910>

Mary Julius, Denise Kresevic, Maria Turcoliveri, Lynn Cialdella- Kam, Christopher J. Burant. (2017). Malnutrition as a Fall Risk Factor. U.S. National Library of Medicine.

NCBI National Center for Biotechnology Information 34(2): pp.27-30 ,2017. retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6372028/>

Medical News Today. (2018) What are the consequences of a sedentary lifestyle? retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7700832/>

Public Health Canada (2014). Senior's Falls in Canada: Second Report. Retrieved from <https://www.canada.ca/en/public-health/services/health-promotion/aging-seniors/publications/publications-general-public/seniors-falls-canada-second-report.html>

Saskatchewan Health Authority (2014). Falls prevention: Tips to prevent falls. Retrieved from https://www.saskatoonhealthregion.ca/locations_services/Services/Falls-Prevention/Pages/Tips/Sleep.aspx#:~:text=Lack%20of%20sleep

Shapiro, P. (2019). Hearing loss and the increased risk of falls. AshaWire. Retrieved from <https://www.campaignforbetterhearing.org/hearing-research/2017/hearing-loss-linked-to-an-increased-risk-of-falls>

Statistics Canada (2015). Nutritional Risk among older Canadians. Retrieved from <https://www150.statcan.gc.ca/pub/article/11773-eng>

Statistics Canada (2015). Understanding seniors' risks of falling and their perception of falling. Retrieved from [Understanding seniors' risk of falling and their perception of risk \(statcan.gc.ca\)](#)

UK Falls Fact Sheet (2019). Managing adult malnutrition: Including a pathway for the appropriate use of oral nutrition supplements. Retrieved from <https://www.malnutritionpathway.co.uk/>

World Health Organization (2020). Ageing: Healthy Ageing and Functional Ability. Retrieved from <https://www.who.int/westernpacific/news/q-a-detail/ageing-healthy-ageing-and-functional-ability>

World Health Organization (2021). Falls. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/falls#:~:text=A%20fall%20is%20defined%20as,though%20most%20are%20non%20fatal>

SUMMERVILLE

Family Health Team

