

Overview of Falls & the Older Adult

Education for Health Care Professionals

Part 2: Recognizing Risk Factors



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Biological & Intrinsic Risk Factors

- Over the age of 65
- Female
- Cognitive impairment (dementia, [TBI](#), [ABI](#), delirium)
- Acute illnesses (urinary tract infections and pneumonia)
- Respiratory problems
- Chronic health conditions (neurological disorders, diabetes, arthritis, osteoporosis, end stage renal disease, incontinence)
- Sensory deficits
- Muscle weakness
- Frailty
- Depression
- Foot problems

(Scott, 2012; [Oliveria et al., 2015](#))



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Modifiable & Extrinsic Risk Factors



(Tinetti, 2003)

- Obesity
- Medication
- Social isolation
- Inadequate nutrition and/or hydration
- Physical weakness
- Gait
- Un-managed pain
- Fatigue
- Excessive alcohol consumption
- Improper use of mobility aids
- Unaddressed sensory difficulties
- Sleep difficulties
- Fear of falling



Increased Risk of Falls: Chronic Disease >>



- Older adults with OA of the hip or knee are at higher risk of falls due to lower-limb weakness, reduced mobility, pain and slowed gait. Impacts of hip or knee OA include impaired balance, ability to walk and complete other daily activities which often result in restricted participation in social activities. (Arnold & Gyurcsik, 2012)
- Older adults with RA may suffer from the following issues which increase their likelihood of falling:
 - Pain
 - Lower extremity muscle weakness
 - Swollen and tender joints
 - Postural instability
 - Fatigue
 - Medication side-effects

(Arthritis Alliance of Canada, 2014; Arnold & Gyurcsik, 2012; Stanmore et al., 2013)



Increased Risk of Falls: Chronic Disease



- Women with osteoarthritis (OA) experienced 30% more falls and were found to have a 20% greater risk of fracture than those without OA. ([Dunkin, n.d.](#))
- A correlation between pain and the risk of falling has been established by a number of Studies. Older adults, who reported having musculoskeletal pain in two or more locations or severe pain that limited their ability to perform regular daily activities were more likely to fall. ([Dunkin, n.d.](#))
- Older adults, 75 years and older who reported frequent knee pain had an increased risk of falls of 25% and close to double the risk of hip fractures than those without frequent knee pain. ([Dunkin, n.d.](#))

([Dunkin, n.d.](#); [Arthritis Alliance of Canada, 2014](#); [Arnold & Gyurcsik, 2012](#))

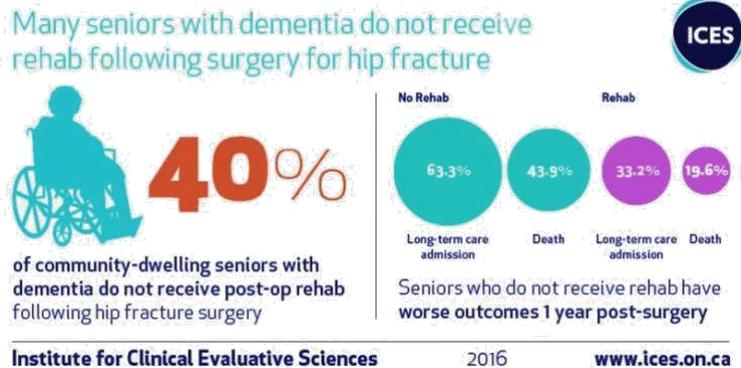


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Other Considerations

Older adults with Alzheimer's Disease are more likely to suffer from hip fracture than those without dementia ([Seitz et al., 2016](#))



([Institute for Clinical Evaluative Sciences \[ICES\], 2016](#))



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Recommendations for Reducing Risks

- Exercise regime to reflect recommended guidelines for older adults to maintain or improve strength, balance, flexibility and gait
- Fall prevention education
- Address sensory impairments
- Treat pain to improve mobility
- Maintaining or achieving a healthy weight
- Environmental modifications
- Smoking cessation to improve respiratory function
- Address polypharmacy and medication side effects

[\(Arthritis Alliance of Canada, 2014; Artz, 2015; Chen, Y., Chen, L., Lan & Chen, D., 2009; Eat Right Ontario, 2017; Golding, 2012; Fall Prevention Community of Practice LOOP, 2017\)](#)

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