



The Ottawa  
Hospital | L'Hôpital  
d'Ottawa

# **MOVE ON: Mobilization Of Vulnerable Elders In Ontario**

**Or**

## **How Can We Keep Our Patients Moving?**





# Objectives

After participating in this educational session, inter-professional team members will be able to:

- Understand the importance of mobility
- Recognize that current mobilization practice is detrimental to our patients
- Describe the principles/purpose of early mobilization



## Some Numbers to Think About

- In Ontario, seniors account for:
  - 19.5% of ED visits
  - 56% of acute hospital days
  - 83% of acute ALC days
- Older age groups are projected to have the fastest rate of population growth in the province

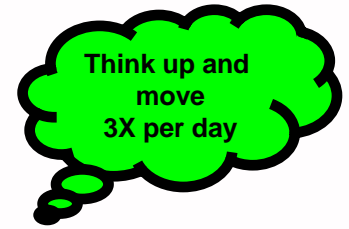
2010/11 DAD data from [www.intellihealth.moh.gov.on.ca](http://www.intellihealth.moh.gov.on.ca)





# At Present

## Hospitalization = Immobility



- Academic hospitals in Toronto: < 30% of patients were mobilized regularly

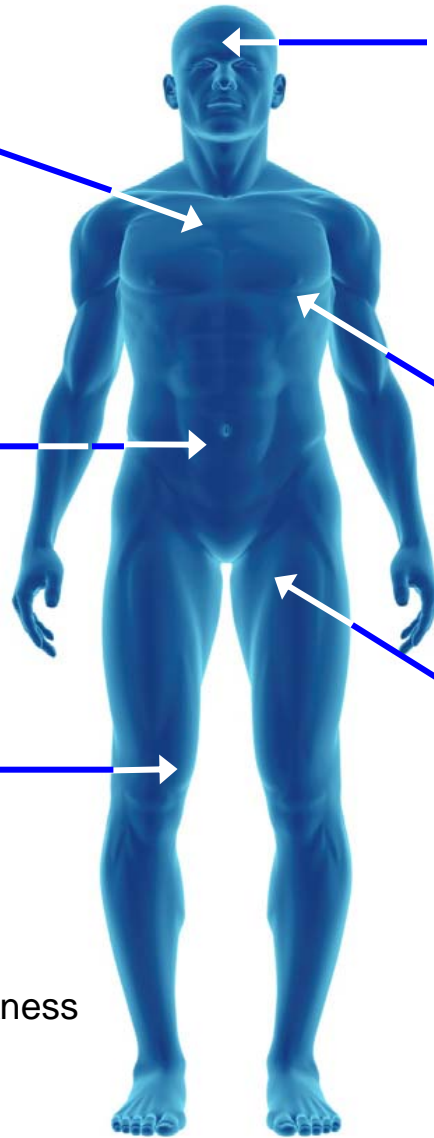
### Why?



- Hospital environment discourages mobility & exacerbates disorientation
- Mobility is restricted and mobility orders unclear
- Dependence on staff is enforced

Covinsky et al: JAMA, 2011 Oct 26; 306(16):1782

- Without mobilization, elderly patients lose 1-5% of muscle strength each day (Annals Int Med 1993;118:219-23)



### Respiratory System

- Decreased lung volume
- Pooling of mucous
- Cilia less effective
- Decreased oxygen saturation
- Aspiration atelectasis

### Gastrointestinal System

- Increased risk of aspiration
- Loss of appetite
- Decreased peristalsis
- Constipation

### Musculoskeletal System

- Weakness
- Muscle atrophy/wasting
- Loss of muscle strength by 3-5%
- Calcium loss from bones
- Increased risk of falls due to weakness

### Psychological

- Anxiety
- Depression
- Sensory deprivation
- Learned helplessness
- Delirium

### Circulatory System

- Loss of plasma volume
- Loss of orthostatic compensation
- Increased heart rate
- Development of DVT

### Genitourinary System

- Incomplete bladder emptying
- Formation of calculi in kidneys and infection

# Complications of Immobility



# So how do we address this?

- Ontario Local Health Integrated Networks' Provincial Senior Friendly Strategy and hospital improvement plans across the province have been developed to:
  - Prevent functional decline through early mobilization
  - Prevent of delirium
- **Overall vision:** enable seniors to maintain optimal health and function while they are hospitalized so that they can transition successfully home or to the next appropriate level of care



## CAHO (Council of Academic Hospitals of Ontario)

- Non-profit association of Ontario's 24 academic hospitals and their research institutes
- Provides focal point for strategic initiatives on behalf of academic hospitals
- **MOVE ON = Mobilization of Vulnerable Elders in Ontario**
  - Knowledge transfer project approved by CAHO November 2011



- **The Ottawa Hospital** is one of 14 academic hospitals in Ontario participating in the **MOVE ON** project

## Objective:

- To implement and evaluate the impact of an evidence based strategy to promote early mobilization and prevent functional decline in older patients admitted to hospitals in Ontario





## Goal:

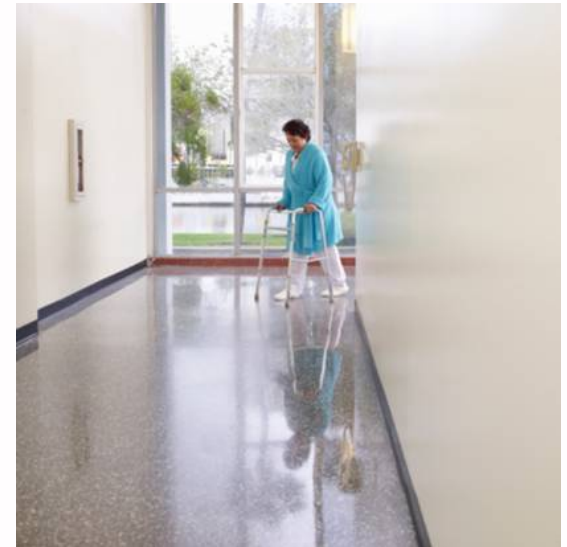
- Progressive, scaled mobilization, at least three times daily

## Method:

- Assess mobility within 24 hours
- Design plan of care
- Monitor progress, update targets to support OPTIMAL mobilization
- Interprofessional team collaboration to encourage mobility



# Why Focus on Mobility?



# Mobility



- Mobility is an essential life-skill, but can be easily compromised by even brief periods of immobilization
- A decline in mobility can start within 2 days of hospitalization!
- Mobilization is known to prevent three serious complications of hospitalization that affect older adults:
  - Delirium
  - Functional Decline
  - Falls

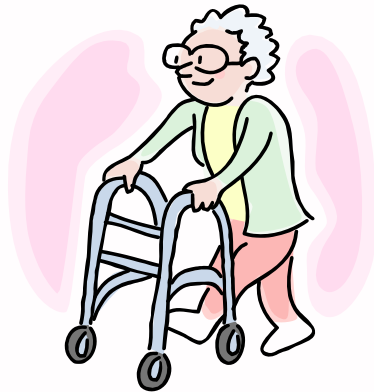




Think up and  
move  
3X per day

Patients who walk around their room and their wards shortened their length of stay by 1.5 days, even more so for those who walked around the ward on the first day of admission

(Shadmi & Zisberg, 2011)





# What is mobility?

- In the simplest terms, mobility is not lying in bed
- Depending on the patient's mobility level and capabilities, mobility includes:
  - Bed exercises
  - Sitting at the edge of the bed or chair
  - Transfers
  - Ambulating with or without a gait aid





# Who can mobilize? Every patient!

2007 study found that mobilizing frail older adults is safe


- Overall adverse event rate is very low: 14 in 1,449 activity events (0.96 %)
- Adverse events include:
  - Falling to knees without injury
  - Change in BP (SBP < 90 or >200 mm Hg)
  - O2 desaturation <80%
  - Accidental tube removal



Bailey et al, Crit Care Med 2007; 35:139-145



# Conclusion

- Older adults:
  - Account for 56% of acute hospital admissions
  - Are projected to have the fastest rate of population growth in the province
  - Lose 1-5% of muscle strength if not mobilized which leads to functional decline and loss of independence
-  project has been developed to promote early mobilization with these older patients and to prevent functional decline

# Acknowledgements

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