



GEORGE MASON UNIVERSITY

Precision Outreach Intervention, Surveillance and Exercise for Falls Prevention Prince William



Who are we?

- George Mason University
- Project Mend-A-House
- Old Dominion University

- Graciously supported by Potomac Health Foundation



Introduction

- Our goals are to:
 - Provide workshops to discuss why people fall, identify modifiable factors, exercises, and possible home modifications
 - Discuss our exciting free fitness program
 - Present our home safety and modification program



What is a Fall?

- A fall as an event which results in a person coming to rest unintentionally on the ground or other lower level that did not result from another event (e.g., health problem, car accident, etc.)



Nevitt et al., JAMA, 1989; 261: 2663-2668
 Cumming et al., BMJ 2008; 336: 758-760



You're not falling down: just flying **POISED**



Until you hit the ground

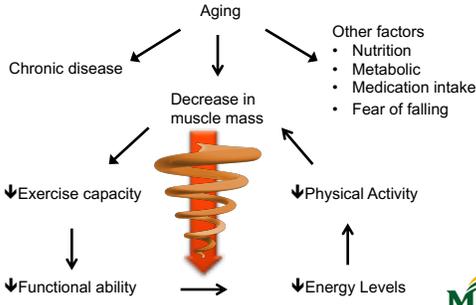


How Big a Problem are Falls? **POISED**

- For individuals over 65 years, falls are the leading cause of severe injury-related problems
- Projected life time health costs: **\$20 billion**
- One third of older individuals over 65 suffer a fall at least once a year
 - Over 90% of all hip fractures come from falling
 - Falls are linked with limited independent and poor quality of life



What Can Happen as You Age **POISED**



Chronic disease

Aging

Decrease in muscle mass

Exercise capacity

Functional ability

Physical Activity

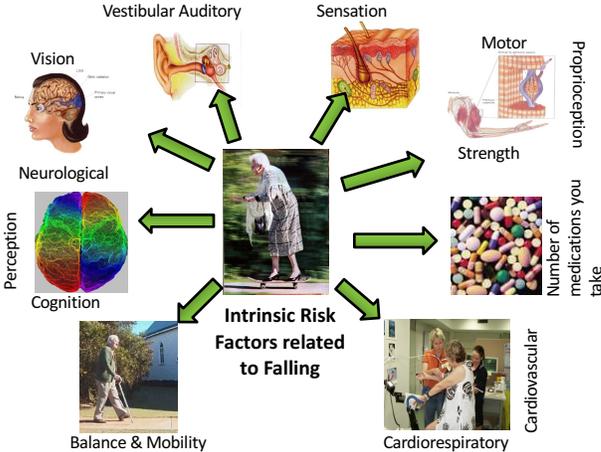
Energy Levels

Other factors

- Nutrition
- Metabolic
- Medication intake
- Fear of falling



Intrinsic Risk Factors related to Falling



Vestibular Auditory

Sensation

Motor

Proprioception

Strength

Number of medications you take

Cardiovascular

Balance & Mobility

Perception

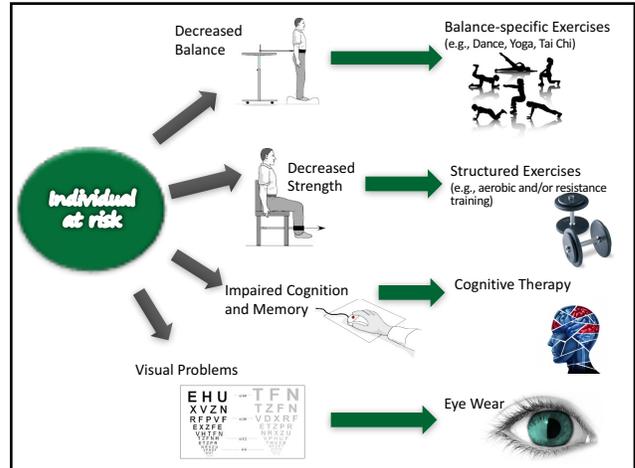
Cognition

Most Common Risk Factors For Falling

- Muscle weakness
- History of falls
- Gait deficit
- Use of an assistive device
- Visual deficit
- Arthritis
- Impaired

- Activities of Daily Living
- Depression
- Cognitive impairment
- Age greater than 80 years old

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Assessing Falls Risk

The biggest single risk factor for future falls is

Muscle Weakness



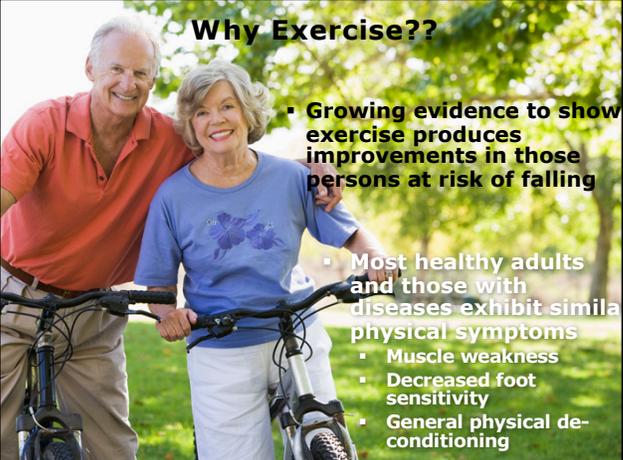
We can fix this!!!

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Why Exercise??

- Growing evidence to show exercise produces improvements in those persons at risk of falling
- Most healthy adults and those with diseases exhibit similar physical symptoms
 - Muscle weakness
 - Decreased foot sensitivity
 - General physical de-conditioning



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What Exercises Work?

- Cardiovascular
 - Identify activities you enjoy





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What Exercises Work?

- Strength





Chair sits

Knee Extension

Wall push-ups

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What Exercises Work?

- Strength





Toe stands

Knee curl

Hip abduction

For more information on these exercise and how to incorporate into your daily routine, please visit our website at poised.gmu.edu

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What Exercises Work?

- Balance
 - Walking heel-to-toe
 - Stand on one foot
 - Stand up and sit down without using hands
 - March in place



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Our Exciting Free Fitness Program!

- 3 days/week for 1 hour for 10 weeks
- Focus is on staying active and independent
- Combines aerobics, strength, balance and flexibility into a fun class with good music and qualified instructors



What to Expect

- All exercises are completed at your own pace and be done seated or standing
 - Warm-up: 3-5 minutes
 - Aerobics: 15-20 minutes
 - Balance: 10 minutes
 - Strength: 15-18 minutes
 - Stretching: 8-10 minutes



Tips to Help Prevent Falls

- Home modifications
 - Remove clutter and tripping hazards
 - Install railings and grab bars
 - Make sure home is well lit
 - Place bells on pets collars
- Have your vision checked regularly
- Review medications with physician
- Wear proper footwear



THANK YOU!!!

- Questions?



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