

Fall Prevention:
Intrinsic Risk Factors

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Objectives

1. Name 4 intrinsic risk factors and explain how they affect falls risk.
2. Name 2 intrinsic risk factors that are modifiable and explain how to modify each.

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Let's hear this gentleman's story
Take some notes about his story

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Intrinsic Risk Factors

- Age
- Vision
- Decrease in lower extremity strength, power
- Orthostatic hypotension
- Cognitive impairment
- Comorbidities
- Fear of falling
- Depression

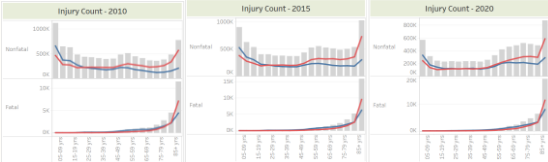


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Age

Non-modifiable risk factor



<https://injuryfacts.nsc.org/home-and-community/safety-topics/older-adult-falls/data-details/>


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Strength/Power

Strength is the maximum force applied to an object


Power is defined as force x velocity, or how quickly a load is moved



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Strength/Power




Ankle Strategy

The diagram shows two human figures standing side-by-side. The figure on the left is upright. The figure on the right is leaning forward, with a dashed line indicating the original upright position. A small icon of a foot is shown at the base of the leaning figure, illustrating the ankle strategy for maintaining balance.

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Strength/Power



Without sufficient power, balance strategies, like the ankle strategy, are not possible.


The diagram shows two human figures standing side-by-side. The figure on the left is upright. The figure on the right is leaning forward, with a dashed line indicating the original upright position. A small icon of a foot is shown at the base of the leaning figure, illustrating the ankle strategy for maintaining balance.

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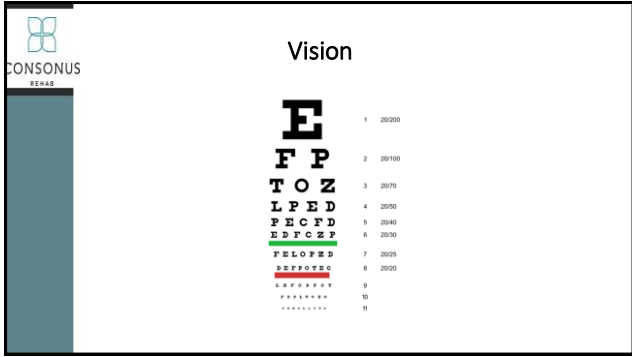
Strength/Power

Modifiable risk factor

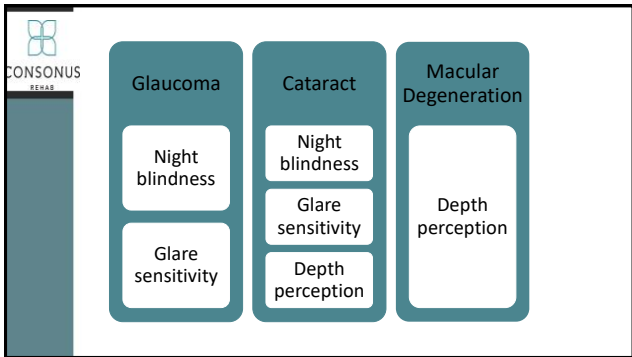


A photograph of a person performing a squat exercise on a blue mat outdoors. The person is in a low squat position, holding a weight on their back.

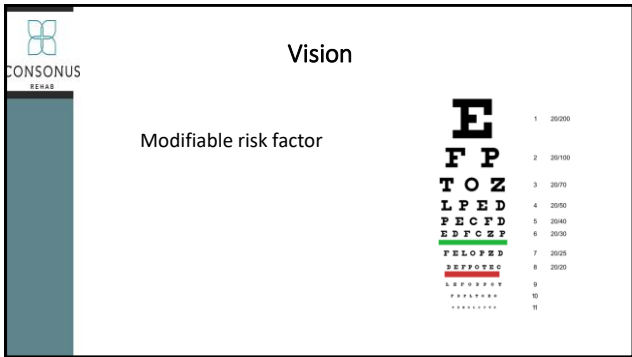
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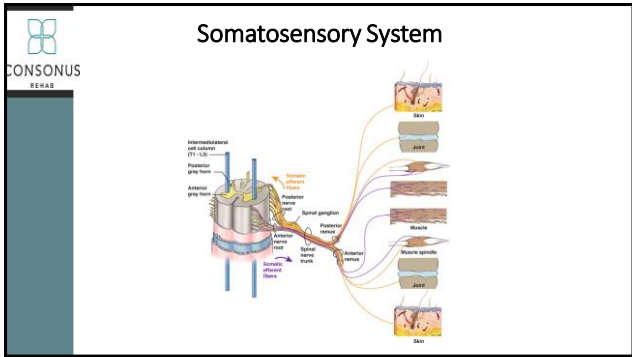
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Somatosensory System

Non-Modifiable risk factor


- ✓Nerve conduction velocities decrease with age
- ✓Disease can damage the receptors and nerves
- ✓Impacts use of balance strategies

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Orthostatic Hypotension

Modifiable risk factor

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Cognitive Impairment

Non-modifiable risk factor

- Accommodate for decreasing/absent judgment safety
- Modify environment for visual changes
- Bright bold colors and contrasting colors
- Seating, positioning, and transfer strategies

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Incontinence

Modifiable risk factor

- 1.3 to 2.3 fold of increased risk of falls
- Woman and Older Adults have highest risk

Szabo SM, Gooch KL, Walker DR, Johnston KM, Wagg AS, 2018

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Past Fall

Non-modifiable risk factor

Experiencing a fall within the last 3-6 months doubles the likelihood of another fall.

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Fear of Falling

Modifiable risk factor

Activities-Specific Balance Confidence Scale (ABC)
Falls Efficacy Scale

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Comorbidities

Modifiable risk factor


- Depression
- Osteoporosis
- Cardiopulmonary

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Interventions to Modify Risk Factors

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 **Strength/Power**


- Resistive exercise training using moderate intensity
- High velocity low load for power training

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 **Vision**


- Referral to primary physician, ophthalmologist, or optometrist
- Vision therapist
- Environmental modifications
 - Lighting
 - Contrasting colors
 - Minimize hazards

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 **Orthostatic Hypotension**


- Referral to primary physician for medical management
- Provide education on orthostatic hypotension
- Instruct exercises to perform prior to getting up

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 **Incontinence**


- Referral to physician
- Referral to physical therapy
- Establish toileting schedule
- Identify bladder irritants

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 **Fear of Falling**

- Referral to physical therapy and/or occupational therapy


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 **Comorbidities**

- Medical management of disease process

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- Let's review his story again
- Update your notes
- Identify all the intrinsic risk factors

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- Let's here a different version

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Questions?

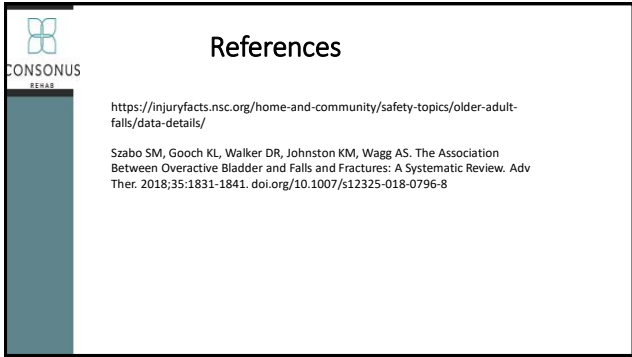
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