



# **FALL PREVENTION: PROPER FOOTWEAR AND EXERCISES**

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# Fall Statistics

- In 2019, over 14 million older adults reported falling in and out of the home.
- In 2021, about 39,000 older adults died due to unintentional falls in and out of the home.
- Men showed to have more fatal falls than women.
- Most falls could be prevented if adequate footwear is addressed.
- Over 50% of falls can occur when individuals are not wearing the proper footwear, i.e barefoot, socks, loose fitting slippers.



(Kakara et al., 2023)



# WHY IS FOOTWEAR IMPORTANT IN FALL PREVENTION?

- Many falls experienced by older people result from deterioration of the balance and neuromuscular systems.
- Footwear (or lack thereof) influences gait, balance, and the amount of feeling between your feet and the ground.
- Footwear can also modify the amount of friction between your feet and the floor.
- This greatly impacts the risk of **slips**, **trips**, and **falls** inside and outside of the home.



# NOT ALL SHOES ARE CREATED EQUALLY...

## Footwear characteristics to look out for:

- Heel height and geometry
- Collar height
- Sole hardness/squishiness
- Amount of tread
- Sizing

## For optimal fall prevention...

Older people should wear shoes with low heels and firm, slip-resistant soles both **inside** and **outside** the home.

Walking barefoot, in socks indoors, or outdoors in high-heel shoes have been shown to increase the risk of falls in older people!



# THE BOTTOM LINE

1. Footwear is an environmental risk factor for both indoor and outdoor falls
2. Maximizing safe shoe use can positively contribute to an effective fall prevention strategy
3. Footwear choice is an easily modifiable risk factor for falls



# WHAT DOES A SAFE SHOE LOOK LIKE? THIS OR THAT?



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# EXERCISE AS A WAY TO PREVENT FALLS

- Exercises that target balance, walking patterns, and muscle strength effectively prevent falls
- Exercise as a **SINGLE** intervention decreased fall incidence by more than 36%
- Main factors contributing to falls include
  - Decreased postural balance
  - Decreased agility
  - Muscle weakness



# EXERCISES TO PREVENT FALLS:

## Sit-to-Stand Exercise

- How to complete?
  - Begin seated with feet shoulder width apart
  - Use legs to stand up, push up with arms on stable surface if needed for assistance
  - Slowly lower to starting position and repeat 10 times
- Equipment needed
  - Chair or stool
  - Closed-toe shoes



# EXERCISES TO PREVENT FALLS:

## Heel-Toe Walk Exercise

- How to complete?
  - Stand in an open space where you can walk approximately 20 ft without any obstructions
  - Put your arms out and take a step forward aligning your heel the opposite foot's toes
  - Continue in a straight line by taking steps in alignment
- Equipment needed?
  - Open space & closed-toe shoes



# EXERCISES TO PREVENT FALLS:

## Standing Marches Exercise


- How to complete?
  - Stand with feet shoulder-width apart
  - Raise one leg with knee bent until thigh is parallel to the floor and then slowly return foot flat to floor
  - Repeat with other leg & continue alternating legs 20 times
  - AVOID leaning or going too quick
  - If assistance is needed for balance, hold onto a **STEADY** surface between hip-shoulder height
- Equipment needed?
  - Closed-toe shoes, chair/counter/sturdy surface, open space





# **KNOWLEDGE CHECK!**





## QUESTION 1 : TRUE/FALSE

Exercise is a beneficial way to aid in the prevention of falls



## ANSWER 1 : TRUE/FALSE

**TRUE:** EXERCISE IS PROVENTO REDUCE  
INCIDENCES OF FALLS



## QUESTION 2: TRUE/FALSE

Most falls can be prevented if adequate footwear is utilized

## ANSWER 2: TRUE/FALSE

**TRUE:** MOST FALLS CAN BE PREVENTED IF ADEQUATE FOOTWEAR IS UTILIZED.





**QUESTION 3:  
ABOUT HOW MANY ADULTS REPORTED A  
FALL IN 2019?**

A. 500,000

B. 17,000

C. 1,500,000

D. 14,000,000





**ANSWER 3:  
ABOUT HOW MANY ADULTS REPORTED A  
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**QUESTION 4:  
WHY IS EXERCISE AN IMPORTANT  
REMEDY FOR FALL PREVENTION?**

A: It is cost efficient


B: It reduces incidences in falls

C: It increases strength, agility, and postural balance

D: All of the above

# ANSWER 4: WHY IS EXERCISE AN IMPORTANT REMEDY FOR FALL PREVENTION?

A: It is cost efficient \$

B: It reduces incidences in falls 

C: It increases strength, agility, and postural balance 

**D: All of the above**



## QUESTION 5: TRUE/FALSE

Men showed to have more fatal falls than women



## ANSWER 5: TRUE OR FALSE

**TRUE:** Though women showed more **injurious** falls, men showed more **fatal** falls.





**QUESTION 6:  
USING PROPER FOOTWEAR WILL..**

- A. Increase falls
- B. Increase happiness
- C. Improve gait
- D. Improve balance
- E. Both C & D



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- B. Increase happiness
- C. Improve gait
- D. Improve balance
- E. **Both C & D**



**QUESTION 7:  
WHAT IS THE MINIMUM RECOMMENDED  
AMOUNT OF EXERCISE A WEEK?**

A: 1 hour, three days a week

B: 30 minutes, five days a week

C: Whenever you feel like it

D: 45 minutes, two times a day



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## QUESTION 8: CHARACTERISTICS OF SAFE FOOTWEAR INCLUDE...

- A. Firm-slip resistant soles
- B. Stylish Laces
- C. A low heel
- D. A proper fit
- E. A, C, and D





## ANSWER 8: CHARACTERISTICS OF SAFE FOOTWEAR INCLUDE...

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## **QUESTION 9: TRUE OR FALSE?**

Footwear choice only impacts your risk of fall outside of the home.



## ANSWER 9: TRUE OR FALSE?

**FALSE:** Footwear choice impacts your risk of falling inside and outside the home. Wearing socks or being barefoot in the home can increase the risk of falls in older people.

# QUESTION 10: WHICH OF THE FOLLOWING STATEMENTS ABOUT FOOTWEAR IS TRUE?



- A. Footwear can modify the amount of friction between your feet and the floor.
- B. Footwear can impact a person's balance
- C. Footwear is an easily modifiable risk factor for falls
- D. All of the above are true

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The background is a solid pink color. On the left side, there are large, abstract yellow shapes that resemble a stylized '3' or a series of curved lines. In the top right corner, there is a small, solid yellow circle.

**THANK YOU!!**

**TUNE IN NEXT WEEK FOR  
SAFE DRESSING  
& ADAPTIVE CLOTHING TO  
PREVENT FALLS**