

# Fall Prevention Symposium Speaker Booklet



**FALL  
PREVENTION**

*Grounding our communities to stand up to falls*

**The Fall Prevention Symposium Speaker Booklet is intended to be used as a guide for the Fall Prevention Presentation, with each section listing objectives and proposed speakers pending availability. Some of the slides in the Fall Prevention Presentation include text in *red italics*, highlighting sections requiring organization/location specific information and should be edited prior to presenting.**

**The Fall Prevention Presentation and Symposium Speaker Booklet were developed for the American College of Surgeons Southern California chapter to emphasize the importance of fall prevention in older adults.**

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## **I) Introduction (slides 1-5)**

### **Slides 1) Title**

- Insert your hospital's or organization's logo on all of the slides

### **Slide 2) Disclosures**

- All images were open sourced or generated by AI

### **Slide 3) Course Goals**

- Increase awareness of fall prevention
  - Community (all age groups)
  - Healthcare providers
  - Caretakers
- Incorporation of fall prevention practices
  - Exercise
  - Diet
  - Medicine
  - Physical barriers
- Provide community resources
  - Exercise groups
  - Community support
  - Emergency services
- Prevent falls and injuries in the:
  - Home
  - Community
  - Hospital

### **Slide 4) Agenda**

- Patient Story
- The Impact of Falls
- Emergency Response for Falls
- Medications and Effects of Falls
- Geriatrician Perspective
- Senior Resources and Social Services
- Tai Chi for Fall Prevention

### **Slide 5) Patient Story**

- Provide a personal or patient story about a fall resulting in injuries
- Outline the factors leading up to the fall event
  - Personal history
  - Medical history
- Describe the injuries and complications from the fall
- Discuss the recuperation after the fall
  - Lifestyle alterations
  - Resource availability

## **II) Impact of Falls (slides 6-9)**

*Speaker: Healthcare clinicians or caretaker who consistently works with older adults on fall preventions*

Objectives: Falls are common but they do not need to be part of normal aging

- Review data on falls
  - Frequency of injuries and deaths in US
  - Impact on healthcare (resources, economy, patient family)
  - Fill in local statistics
- Discuss how common falls are and why
  - Emphasize that they do not need to be a part of normal aging

### **Slide 6) Impact of Falls: Statistics**

- Each year in the US:
  - 14 million older adults fall
  - 1 million fall-related hospitalizations among older adults happen
  - Most falls occur in the home

### **Slide 7) Impact of Falls: Statistics**

- About 40% of falls result in injury
- 10-11% of falls result in major injuries
  - Major injuries are those that can lead to short- and long-term disabilities that can reduce one's quality of life and even death
- Falls are NOT a normal part of aging
  - Falls impact patient health, the healthcare system, and the economy

### **Slide 8) Impact of Falls: Statistics**

- According to the CDC, unintentional injuries (which include falls) are among the top 10 leading causes of death in the United States

### **Slide 9) Impact of Falls: ACS Statement**

- Falls are the leading cause of both fatal and nonfatal injuries for older adults
- One out of four older adults fall each year. Of these individuals, less than half talk to their health care providers about it
- Many people who fall, even if they are not injured, develop a fear of falling, which may cause them to limit activities, leading to reduced mobility, loss of physical fitness, and, in turn, increased risk of falling
- A person who has fallen once is two to three times more likely to fall again within a year

### **III) Emergency Response for Falls (slides 10-14)**

*Speaker: Prehospital clinician (e.g., EMT, paramedic, firefighter)*

**Objective: Certain information needs to be collected and disseminated before hospital arrival**

- Describe mechanisms to contact emergency medical services (EMS)
- Discuss what EMS assesses once fall protocol activated
- Outline home safety evaluation
  - Disseminate evaluation information to patient and primary caretaker

#### **Slide 10) Emergency Response for Falls**

- Contact emergency medical services
- Assess the person who has fallen
- Evaluate the environment

#### **Slide 11) Emergency Response for Falls: Contact**

- Call 9-1-1
  - Communicate location details to EMS
  - Text to 9-1-1 available in certain locations
- Medical alert bracelets
  - Wearable alert systems that are used to alert emergency services
  - Can contain some medical information (e.g. medications and allergies)
- Community
  - Family, friends, or neighbors can be crucial to rapidly alerting EMS about a fall

#### **Slide 12) Emergency Response for Falls: Assess**

- Patient assessment
  - Bleeding, airway, breathing, circulation
  - Consciousness
  - Witnessed fall
  - Time patient is down
  - Signs of injury
- Hospital transport
  - Based on patient's condition and consent

#### **Slide 13) Emergency Response for Falls: Evaluate**

- Remove physical barriers and slippery items
  - Boxes, carpets, loose clothing
- Store commonly used items within reach
  - Place items on lower shelves or on the counter
- Maintain good lighting throughout the home
  - Avoid tripping or falling
- Install bathroom bars and walking aids
  - Can help prevent falls in the shower
  - Include wall grips and anti-slipping mats

- Disseminate home evaluation information to the patient or caretaker

**Slide 14) Emergency Response for Falls: Evaluate**

- The National Council on Aging has further guidance on how to lessen your risk of falling in the home
- QR codes
  - <https://www.ncoa.org/article/how-to-prevent-falls-with-home-safety-modifications/>
  - <https://www.ncoa.org/article/18-steps-to-fall-proofing-your-home/>

## **IV) Geriatrician Perspective (slides 15-21)**

*Speaker: Geriatrician or healthcare practitioner who works with older adults*

### **Objectives**

- Provide an overview of common fall risks
- Discuss medical conditions that increase fall risk (musculoskeletal, vision, hearing)
- Highlight the importance of nutrition and exercise
- Illustrate the correct use of assistive devices

### **Slide 15) Geriatrician Perspective: Comorbidities**

- Many older adults may have coexisting comorbidities that can put them at greater risk of experiencing a fall or complicate a fall injury
  - Heart disease
  - Diabetes
  - Movement disorders
  - High blood pressure
  - Lung disease
  - Dementia
  - Malnutrition
  - Hearing loss
  - Vision problems

### **Slide 16) Geriatrician Perspective: Vision and Hearing**

- Only 46% of Americans get the recommended minimum annual vision and hearing exam
- Vision and hearing loss can increase fall risk
- Vision exams are useful for
  - Identifying the need for a new prescription
  - Monitoring for cataracts
  - Screening for glaucoma
  - Preventing further vision deterioration
- Hearing exams
  - Can be conducted online
  - Some hearing aids can be sold over the counter
  - Prevent further hearing deterioration

### **Slide 17) Geriatrician Perspective: Nutrition**

- Presented by nutritionist, if available
- Limit highly processed foods
- Fruits and vegetables
  - Spinach, broccoli, blueberries, apples
  - Source of vitamins
- Protein
  - Fish, chicken, eggs
  - Proper servings can prevent muscle wasting
- Dairy

- Low-fat milk, yogurt, cheese
- Essential for bone growth
- Grains
  - Oats, brown rice, cereals
  - Assists with maintaining balanced blood sugar
- Calcium
  - Dairy

#### **Slide 18) Geriatrician Perspective: Nutrition**

- Proper nutrition is necessary for
  - Maintaining proper cognitive functioning
  - Keeping muscles and bones healthy
  - Supporting the immune system
  - Preventing the development and progression of disease
- Food assistance
  - Fill in with local resources that may offer food assistance to older adults

#### **Slide 19) Geriatrician Perspective: Activity**

- Stretching
- Seated exercises
- Standing exercises
- Local programs
  - Fill in with local resources that offer exercise classes for older adults

#### **Slide 20) Geriatrician Perspective: Assistive Walking Devices**

- Use of assistive walking devices can help prevent falls
- Requires knowledge of how to properly use these devices to be most effective
- QR codes
  - <https://www.youtube.com/watch?v=5jvtk8ZZUv8>
  - [https://www.youtube.com/watch?v=zJ\\_oSjriB3k](https://www.youtube.com/watch?v=zJ_oSjriB3k)

#### **Slide 21) How to Fall and Get Up**

- **How to Fall: When falling it's important to follow these four tips!**
  1. Lean forward into the fall: Remember, “the more you roll with the fall, the safer you will be.” - AARP
  2. Bend your knees: This will soften the impact and keep your body from stiffening or getting rigid
  3. Tuck your chin to chest: This will protect your head
  4. Keep your arms tucked: Protect your hand, wrist, and arms to avoid breaking a bone
- **How to get up after a fall**
  1. Roll onto your side
  2. Push yourself up onto your hands and knees
  3. Crawl towards a **sturdy** chair, table, or couch for support. Slowly stand up when you're ready.
- QR code

- <https://www.youtube.com/watch?v=8HAK4gUPhZo>

## **V) Medications and Falls** (slides 22-26)

*Speaker: Pharmacist (or other healthcare clinician that works with seniors)*

### **Objective: Understand the effects of polypharmacy and its association with falls**

- Highlight how polypharmacy increases risk of falls/with statistics
- Provide outline of common high-risk medications
- Describe common side effects to be aware of
- Discuss tips for success in managing polypharmacy

#### **Slide 22) Medications and Effects on Falls: Polypharmacy**

- Polypharmacy is the simultaneous use of medications
- Expensive
  - Medication costs can add up
- Cognitive impairment
  - Use of multiple medications can lead to drug-drug interactions that can affect memory, attention, and cognition
- Difficult to manage
  - Keeping track of timing and dosage of multiple medications can be confusing and dangerous if not well managed

#### **Slide 23) Medications and Effects on Falls: High-Risk Meds**

- Some medications can increase one's risk of falls
- Pain medications
  - Can cause drowsiness and dizziness
- Allergy medications
  - Can cause drowsiness, dizziness, and confusion
- Antidepressants
  - Can cause drowsiness
- Blood pressure medications
  - Can lower blood pressure, causing dizziness
- Sleeping medications
  - Can cause drowsiness, dizziness, and impaired coordination

#### **Slide 24) Medications and Effects on Falls**

- According to a retrospective study conducted by Blachman et al. (2016) at a Level I Adult Trauma Center, among 328 patients aged 65 years and older who had experienced a fall:
  - 62% of patients had taken a high-risk medications 24 hours before falling
  - 57% of patients were administered high-risk medications at doses higher than the recommended daily doses for older adults
  - 16% of patients were taking  $\geq 3$  high-risk medications

#### **Slide 25) Medications and Effects on Falls: Side Effects**

- Again, these side effects include:
  - Low blood pressure
  - Daytime drowsiness
  - Dizziness
  - Coordination difficulty
  - Balance issues
  - Cognitive impairment

**Slide 26) Medications and Effect on Falls: Tips for Success**

- Review medication lists regularly with your clinician
- Identify unnecessary medications with your clinician
- Involve family, caregivers, and clinicians with management
- Maintain an updated and organized list of medications
  - Encourage patients to have a list of medications in their wallet, purse, or notes section of their phone

## **VI) Senior Resources (slides 27-29)**

*Speaker: Social worker*

### **Objectives**

- **Provide available national and local resources for seniors**

#### **Slide 27) Senior Resources and Social Services: Driving**

- Department of Motor Vehicles (DMV) Driver Improvement Program
  - Provides instructions on defensive driving and updates on the rules of the road
- American Association of Retired Persons (AARP) Smart Driver Online Course
  - Online course that is self-paced
  - Teaches on driving skills and strategies, defensive driving techniques to deal with aggressive drivers, local laws and traffic rules, vehicle maintenance tips
- CarFit
  - Educational program developed by the American Association of Retired Persons (AARP), American Automobile Association (AAA), and the American Occupational Therapy Association (AOTA)
  - “The CarFit program consists of free safety education on in-vehicle safety features, explaining how they work and how to find the safest adjustment for the tallest to the smallest individual driver. The program supports drivers by focusing on the driver's comfort, safety, and fit within their vehicle.”
- Department of Motor Vehicles Mature Driver Improvement Program
  - **Designed for drivers ≥55 years**
  - Provides instructions on defensive driving, California motor vehicle laws, updates on road rules and regulations, the effects of medication, fatigue, alcohol, and visual or auditory limitations on a person’s driving ability

#### **Slide 28) Senior Resources and Social Services: Transportation**

- Fill in with local transportation options

#### **Slide 29) Senior Resources and Social Services: In Home**

- Fill in with local in-home services for seniors

## **VII) Tai Chi for Fall Prevention (slides 30-34)**

*Speaker: Tai Chi Instructor (or physical therapist/other clinician that has familiarized themselves with Tai Chi)*

### **Objectives: Review existing literature on Tai Chi for Fall Prevention**

- **Discuss recommendations from national organizations**
- **Demonstrate and have class participate in Tai Chi exercises**

#### **Slide 30) Tai Chi for Fall Prevention: What is Tai Chi?**

- Tai Chi is an ancient Chinese martial art, characterized by slow, intentional movements focused on mindfulness, balance, meditative breathing, and imagery
- Tai Chi is described as meditation in motion, and can be performed standing or seated in a chair
- QR codes
  - <https://www.youtube.com/watch?v=sdJHw780eeU>
  - <https://www.youtube.com/watch?v=4UYM1VaFIFQ>

#### **Slide 31) Tai Chi for Fall Prevention: Data**

- One study found that Tai Chi can lead to better balance and mobility amongst community dwelling adults, including those with chronic health conditions, such as stroke survivors
- Another study found that community based implementation of Tai Chi programs in older adults lead to a 49% reduction in the number of falls

#### **Slide 32) Tai Chi for Fall Prevention: Data**

- Participating in Tai Chi 3 to 6 times per week decreases the overall number of falls, the risk of falling, and the fear of falling in elderly populations.
- Tai Chi improves balance and physical performance while also having cognitive benefits.
- Endorsed by the Centers for Disease Control and Prevention for fall prevention
- Endorsed by the National Center for Complementary and Integrative Health/National Institute of Aging to maintain and improve health and as a complement to therapies for chronic conditions

#### **Slide 33) Tai Chi for Fall Prevention: Get Started Today**

- The Tai Chi playlist is an extra resource for audience members who are interested in getting started with Tai Chi today!
- The playlist consists of 9 videos and averages about 1 hour of content and should only be played if time permits.
- QR code
  - <https://www.youtube.com/playlist?list=PLpzpIuUk1UCOu6uSgoKMU6CSJf7u1YFxv>

#### **Slide 34) Tai Chi for Fall Prevention: Exercises**

- Posted by The National Council of Aging
- QR codes

- <https://www.ncoa.org/article/the-health-benefits-of-tai-chi-and-how-to-get-started/>
- <https://www.ncoa.org/article/evidence-based-program-tai-chi-prime/>

**Slide 35) Assess Your Fall Risk**

- Remember that falls are not a normal part of aging
- QR code
  - <https://www.ncoa.org/tools/falls-free-checkup/>

## **VIII) Summary (slide 36)**

### **Slide 36) Summary**

1. Falls are common, but not a normal part of aging!
2. Falls are the #1 cause of unintentional injuries, hospital admissions, and death in the elderly!
3. If you or your loved one falls, call or text 911 to get help! It's important to let your clinician know about your fall. .
4. Assess your home for potential fall hazards (cords, throw rugs, slippery surfaces)
5. Poor vision and hearing can increase your risk of falls! Get an eye and hearing exam annually!
6. Proper nutrition and exercise can decrease your risk of falls. Eat healthy, well balanced meals to keep your bones and muscles strong. Stay hydrated and monitor your alcohol intake.
7. Certain medications can increase your risk of falls! Taking too many medications (polypharmacy) can also increase your risk of falls. Talk to your clinician about your medications and mention any side effects you may feel.
8. Tai Chi can help promote balance, improve mentation, and reduce your fall risk!

## **IX) References (slides 37-41)**

- 1. OpenAI.** Black and white clipart of a person falling with a prohibition symbol [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 2. Canva.** Older adult sitting in a park with their back towards the camera [AI-generated image]. Text to Image. Generated May 18, 2025.
- 3. Centers for Disease Control and Prevention.** Older adult falls data. 2023. Available from: <https://www.cdc.gov/falls/data-research/index.html>
- 4. Centers for Disease Control and Prevention.** Nonfatal and fatal falls among adults aged  $\geq 65$  years. *MMWR Morb Mortal Wkly Rep.* 2023;72(35):933–939. Available from: <https://www.cdc.gov/mmwr/volumes/72/wr/mm7235a1.htm>
- 5. Shaver AL, Mahnken JD, Pahor M, Kritchevsky SB, Colón-Emeric C, Whitson HE.** Polypharmacy and fall-related injury in older adults: a nationally representative study. *BMC Geriatr.* 2021;21(1):658. doi:10.1186/s12877-021-02632-4. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8669898/>
- 6. Canva.** Simple clipart of a home [AI-generated image]. Text to Image. Generated May 20, 2025.
- 7. Centers for Disease Control and Prevention.** Important facts about falls. 2023. Available from: <https://www.cdc.gov/falls/data-research/facts-stats/index.html>
- 8. Vaishya R, Vaish A.** Falls in older adults are serious. *Indian J Orthop.* 2020;54(1):69–74. doi:10.1007/s43465-019-00037-x
- 9. Centers for Disease Control and Prevention.** Leading causes of death. 2023. Available from: <https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm>
- 10. American College of Surgeons.** Older adult falls and falls prevention. 2019. Available from: <https://www.facs.org/about-acs/statements/older-adult-falls-and-falls-prevention/>
- 11. OpenAI.** Simple clipart of a home [AI-generated image]. ChatGPT. 2025. Available from: <https://openai.com/chatgpt>
- 12. OpenAI.** Digital illustration of a smartphone showing a 9-1-1 call [AI-generated image]. ChatGPT. 2025. Available from: <https://openai.com/chatgpt>
- 13. OpenAI.** Line drawing of a hospital [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 14. OpenAI.** 2D digital illustration of a clipboard [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 15. National Council on Aging.** (n.d.). *How to prevent falls with home safety modifications.* <https://www.ncoa.org/article/how-to-prevent-falls-with-home-safety-modifications/>
- 16. National Council on Aging.** (n.d.). *18 steps to fall-proofing your home.* <https://www.ncoa.org/article/18-steps-to-fall-proofing-your-home/>
- 17. OpenAI.** Digital illustration of a lightbulb [AI-generated image]. ChatGPT. 2025. Available from: <https://openai.com/chatgpt>
- 18. OpenAI.** Digital illustration of a stairwell with a handrail [AI-generated image]. ChatGPT. 2025. Available from: <https://openai.com/chatgpt>
- 19. OpenAI.** Clip art of a plate divided into food groups: half fruits and vegetables, one-quarter cereals and grains, one-quarter protein and dairy [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 20. U.S. Department of Agriculture.** Dietary Guidelines for Americans, 2025-2030 <https://realfood.gov/>

21. **JEVs Human Services.** 5 fruits and vegetables for senior diets. 2024. Available from: <https://www.jevshumanservices.org/5-fruits-and-vegetables-for-senior-diets/>
22. **Incredicare.** 5 healthy whole grains seniors should be eating. 2024. Available from: <https://incredicare.com/5-healthy-whole-grains-seniors-should-be-eating/>
23. **OpenAI.** Clip art of an African American senior citizen eating a healthy meal [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
24. **OpenAI.** AI-generated clip art of older adults exercising [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
25. **More Life Health Seniors.** How to fall safely for seniors [Video]. YouTube. 2020 May 27. Available from: <https://www.youtube.com/watch?v=saevjhoOrHI>
26. **OpenAI.** Clip art of a walking cane [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
27. **OpenAI.** Clip art of a walker [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
28. **AARP.** Falling safely: How to fall to prevent injury. Available from: <https://www.aarp.org/health/conditions-treatments/how-to-fall-safely/>
29. **OpenAI.** AI-generated icon depicting cognitive impairment [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
30. **OpenAI.** AI-generated clip art of a spiral notebook with pen [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
31. **OpenAI.** AI-generated clip art of stacked banknotes and coins [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
32. **OpenAI.** AI-generated image of assorted pills [AI-generated image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
33. **Blachman NL, et al.** (2016). High-Risk medications in hospitalized elderly adults: Are we making it easy to do the wrong thing? *J Am Geriatr Soc.* 2017;65(3):603–607. doi:10.1111/jgs.14703
34. **OpenAI.** Pill bottle spilling pills [AI-generated image]. DALL·E. 2025. Retrieved from ChatGPT.
35. **Canva.** Clip art of a pencil [AI-generated image]. Text to Image. Generated May 18, 2025.
36. **AARP.** Driver safety course. Available from: <https://www.aarp.org/lp/driversafetycourse/>
37. **American Occupational Therapy Association.** CarFit. Available from: <https://www.aota.org/practice/clinical-topics/driving-community-mobility/carfit>
38. **California Department of Motor Vehicles.** Mature driver improvement program. Available from: <https://www.dmv.ca.gov/portal/vehicle-industry-services/occupational-licensing/occupational-licenses/mature-driver-improvement-program/>
39. **Canva.** Clip art of shuttle bus simple [AI-generated image]. Text to Image. Generated May 20, 2025.
40. **Canva.** Assisted living [AI-generated image]. Text to Image. Generated May 22, 2025.
41. **Yan G, et al.** Effects of Tai Chi on balance and gait in stroke survivors: a systematic meta-analysis of randomized controlled trials. *J Rehabil Med.* 2018;50:582–588.
42. **Li F, et al.** Implementing an evidence-based fall prevention intervention in community senior centers. *Am J Public Health.* 2016;106(11):2026–2031.
43. **OpenAI.** Cartoon of a diverse older group of people practicing Tai Chi [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>

- 44. Lee K, et al.** A Tai Chi for arthritis and fall prevention program for older adults during COVID-19. 2021.
- 45. Li F, et al.** Tai Chi and fall reductions in older adults: a randomized controlled trial. *J Gerontol A Biol Sci Med Sci.* 2005;60(2):187–194. doi:10.1093/gerona/60.2.187
- 46. OpenAI.** Cartoon of a diverse older group of people practicing Tai Chi in a different pose [Digital image]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 47. Stevens J, et al.** CDC compendium of effective fall interventions: what works for community-dwelling older adults. 3rd ed. Atlanta (GA): Division of Unintentional Injury Prevention, National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2015.
- 48. National Center for Complementary and Integrative Health.** Tai Chi and Qi Gong: In Depth. 2020. Available from: <https://www.nccih.nih.gov/health/tai-chi-and-qi-gong-in-depth>
- 49. National Council on Aging.** The health benefits of Tai Chi and how to get started. Available from: <https://www.ncoa.org/article/the-health-benefits-of-tai-chi-and-how-to-get-started/>
- 50. National Council on Aging.** Evidence-based program: Tai Chi Prime. Available from: <https://www.ncoa.org/article/evidence-based-program-tai-chi-prime/>
- 51. National Council on Aging.** Falls free checkup. Available from: <https://www.ncoa.org/tools/falls-free-checkup/>
- 52. OpenAI.** Clip art of a healthy older woman [Digital illustration]. ChatGPT. 2025. Available from: <https://chat.openai.com/>
- 53. OpenAI.** Clip art of a healthy older man [Digital illustration]. ChatGPT. 2025. Available from: <https://chat.openai.com/>