



# Be STEADI for Fall Prevention

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# Presentation Overview

**This presentation will highlight:**

- **The burden of falls**
- **Risk factors for falls**
- **How we can prevent falls**
- **Tips for implementing a fall prevention program**
- **Screening for fall risk**
- **Assessment of fall risk factors**
- **Effective strategies to reduce fall risk**
- **Follow-up with patients**
- **Available tools and resources**

# Your Thoughts and Experiences with Falls

**How have falls among older adults (age 65+) affected you?**

- **Have you or someone you know fallen?**
- **What kind of life-changing events occurred because of the fall?**
- **How could the fall have been prevented?**

# Leading Causes of Death

## Top 10 Causes of Death Among Older Adults

1	2	3	4	5	6	7	8	9	10
Heart Disease	Cancer	Chronic Lower Respiratory Disease	Stroke	Alzheimer's Disease	Diabetes	Unintentional Injury	Influenza & Pneumonia	Kidney Disease	Parkinson's Disease



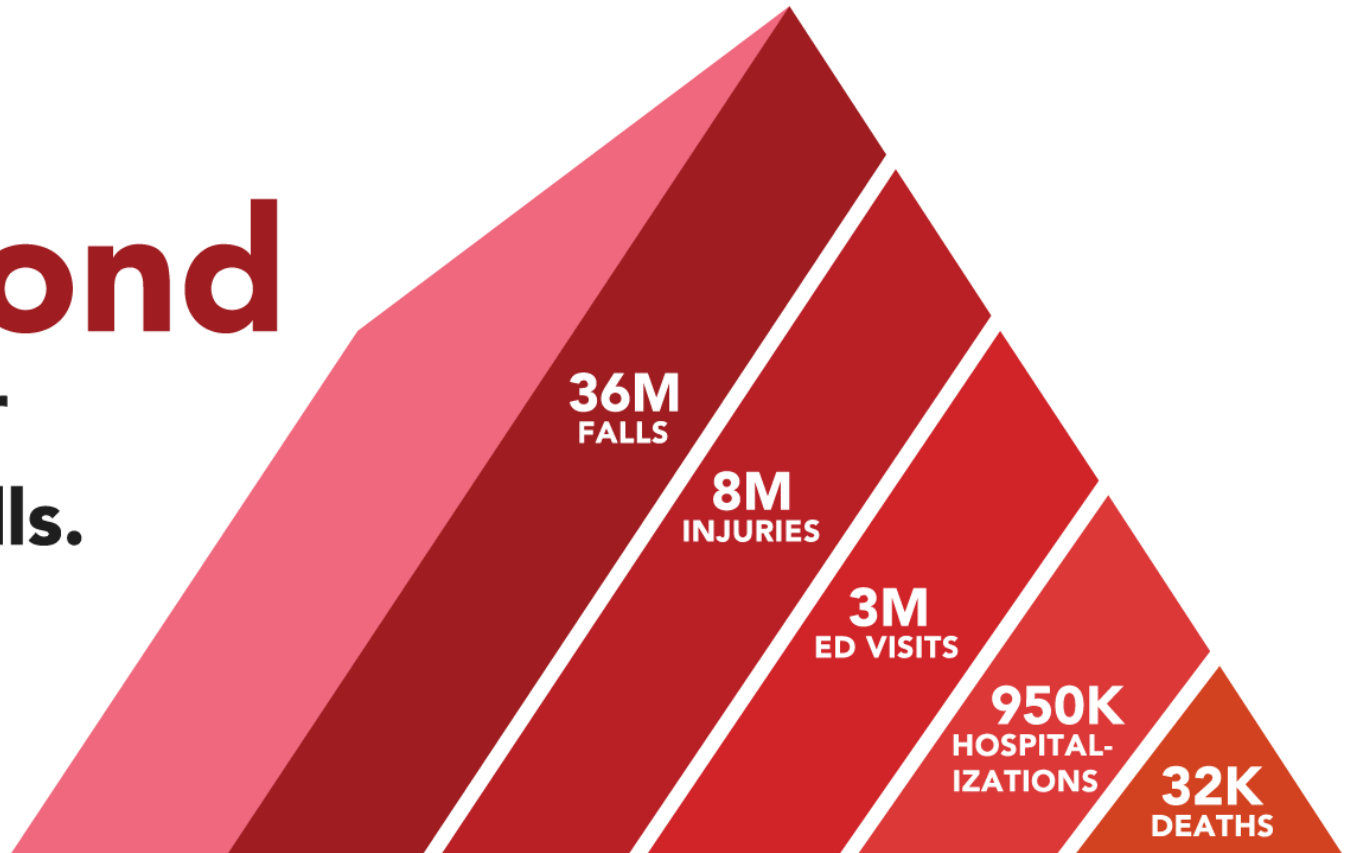
### Top 3 Causes of Unintentional Injury Deaths

1	2	3
Fall	Motor Vehicle (Traffic-related)	Unspecified

Data source: National Vital Statistics System

# Falls Are Common

Every  
**second**  
an older  
adult falls.



Data sources: National Vital Statistics System, National Electronic Injury Surveillance System—All Injury Program, and Behavioral Risk Factor Surveillance System.

# Falls Might Not Be a Priority for Patients

**Less than half of older adults who fall talk to their doctor about falls**

**Reasons patients do not talk to their doctor:**

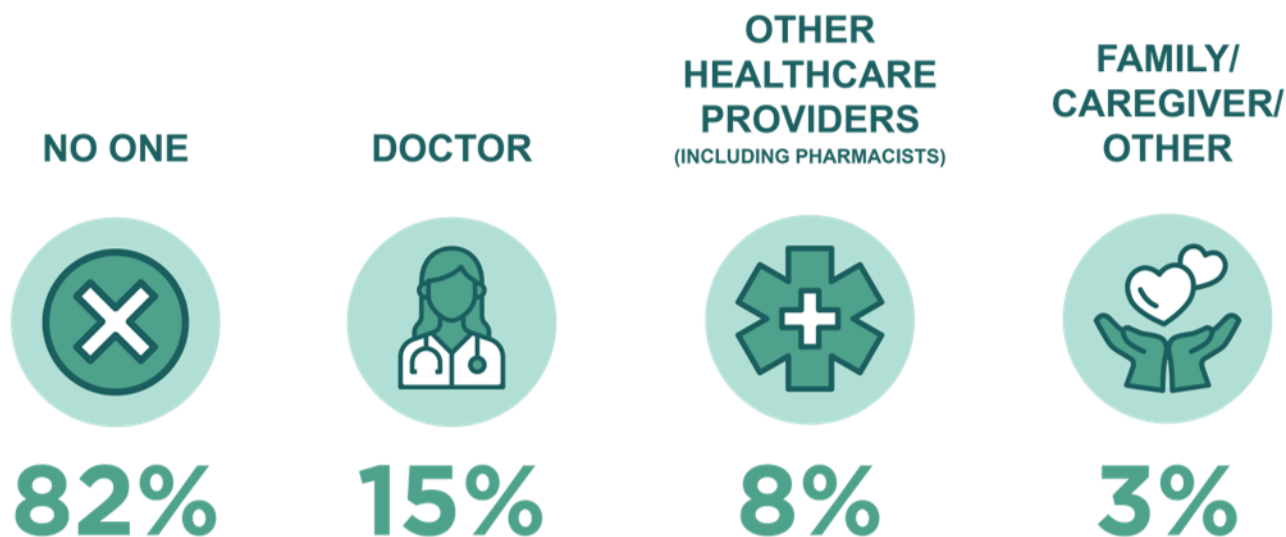
- Belief that falls are a normal part of aging
- Fear that a fall may lead to loss of independence
- Not aware of common fall risk factors

# Falls Might Not Be a Priority for Patients

Few older adults speak to someone about medications and fall risk

## Example:

In the past 12 months, who has talked to you about medications that might make you fall?\*



\*Percentage does not add up to 100 because participants could select more than one response option.

Source: ConsumerStyles survey 2016

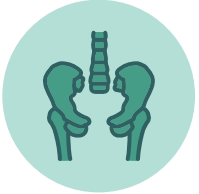
# Falls Might Not Be a Priority for Providers

**Providers also face many barriers to addressing falls with older patients**

- **Competing healthcare priorities**
- **Lack of time during office visits**
- **Limited fall prevention knowledge**
- **Limited communication between providers from different disciplines**
- **Limited reimbursement strategies**



# Consequences of Falls Among Older Adults



**More than 95% of hip fractures are due to falls**



**Falls are the leading cause of traumatic brain injuries**



**Falls and fall injuries increase the risk of nursing home placement**

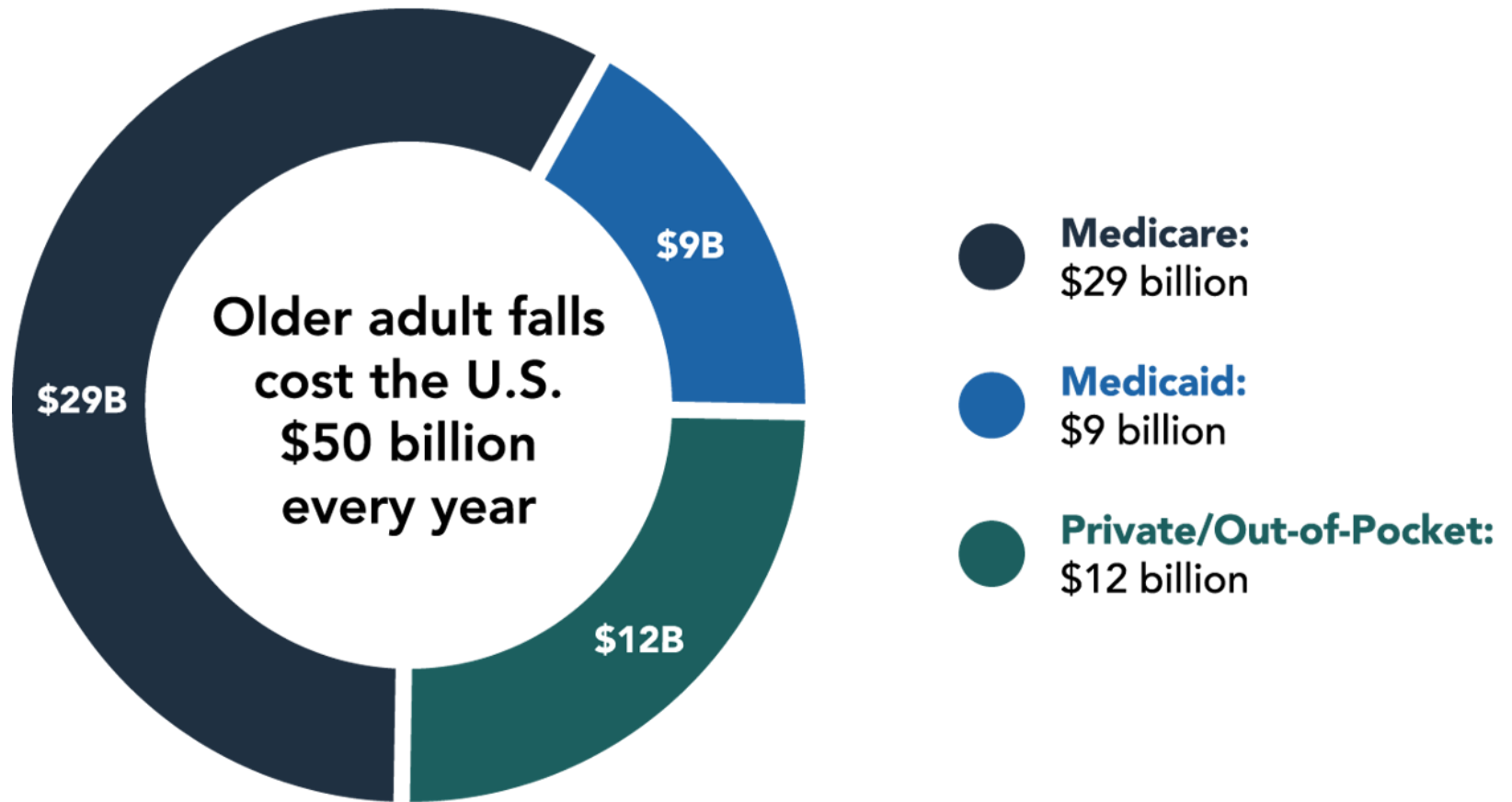


**Fall death rates increased about 30% between 2009 and 2018**

# Falls Are Costly

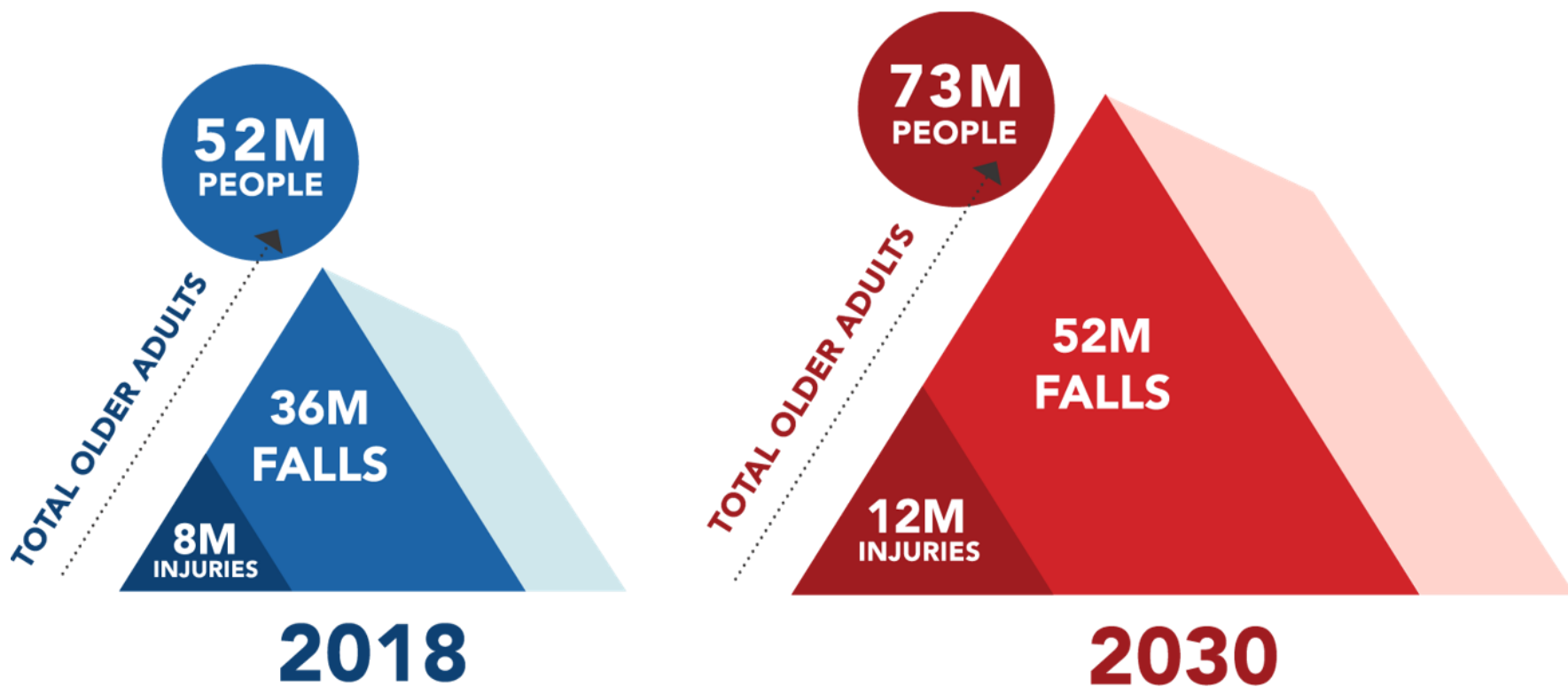
- **Average hospitalization cost due to a fall injury is \$30,000**
  - Fall-related injuries are a leading cause of hospital readmission
- **Average cost per fall injury:**
  - Emergency Department visits = **\$4,829**
  - Office-based and outpatient visits = **\$5,813**

# Falls Are Costly



Florence C., et al. (2018). Medical costs of fatal and nonfatal falls in older adults. *Journal of the American Geriatrics Society*, 66(4), 693-698.

# Falls Are a Growing Burden



Data sources: Behavioral Risk Factor Surveillance System and United States Census Bureau

# Common Fall Risk Factors

## Modifiable Risk Factors

- Gait, strength, and balance deficits
- Medications that increase fall risk
- Home hazards
- Orthostatic hypotension
- Vision problems
- Foot issues/inappropriate footwear
- Vitamin D deficiency
- Comorbidities

## Non-modifiable Risk Factors

- Age
- Sex
- Race/ethnicity
- History of falls



**Fall risk increases as the number of risk factors increases.**

# Falls Are Preventable

The [Stopping Elderly Accidents, Deaths, and Injuries \(STEADI\)](#) initiative was developed by the U.S. Centers for Disease Control and Prevention (CDC)

- STEADI is based on the American and British Geriatrics Societies' Clinical Practice Guideline for Prevention of Falls in Older Persons and designed with input from healthcare providers
- STEADI offers tools and resources to help healthcare providers **Screen, Assess, and Intervene** to reduce fall risk



# Overcoming Implementation Barriers

- Use existing incentives to screen and assess for fall risk
  - Welcome to Medicare Visit
  - Annual Medicare Wellness Visit
- Adapt STEADI tools to fit priorities and clinical workflow



# Successful Implementations

## Oregon Health & Science University, Oregon

- 64% of patients screened for fall risk
- At-risk patients with modifiable risk factors, such as gait impairment and orthostatic hypotension, received interventions

## United Health Services Hospitals, New York

- 79% of patients screened for fall risk
- At-risk patients with a fall prevention care plan were 40% less likely to have a fall-related hospitalization, compared to at-risk patients without a plan



# Benefits of a STEADI-based Fall Prevention Program

## Use STEADI to:

- Prevent fall-related hospitalizations
- Reduce healthcare costs
- Improve the lives and independence of older patients



Stopping Elderly Accidents,  
Deaths & Injuries

# STEADI Algorithm



## STEADI Resource

### STEADI Algorithm: Algorithm for Fall Risk Screening, Assessment, and Intervention

# STEADI: Screening

- If your patient is 65 or older, screen
  - Once a year for fall risk **or**
  - If they present with an acute fall
- Two validated screening tools include
  - The Three Key Questions
  - CDC's *Stay Independent* questionnaire



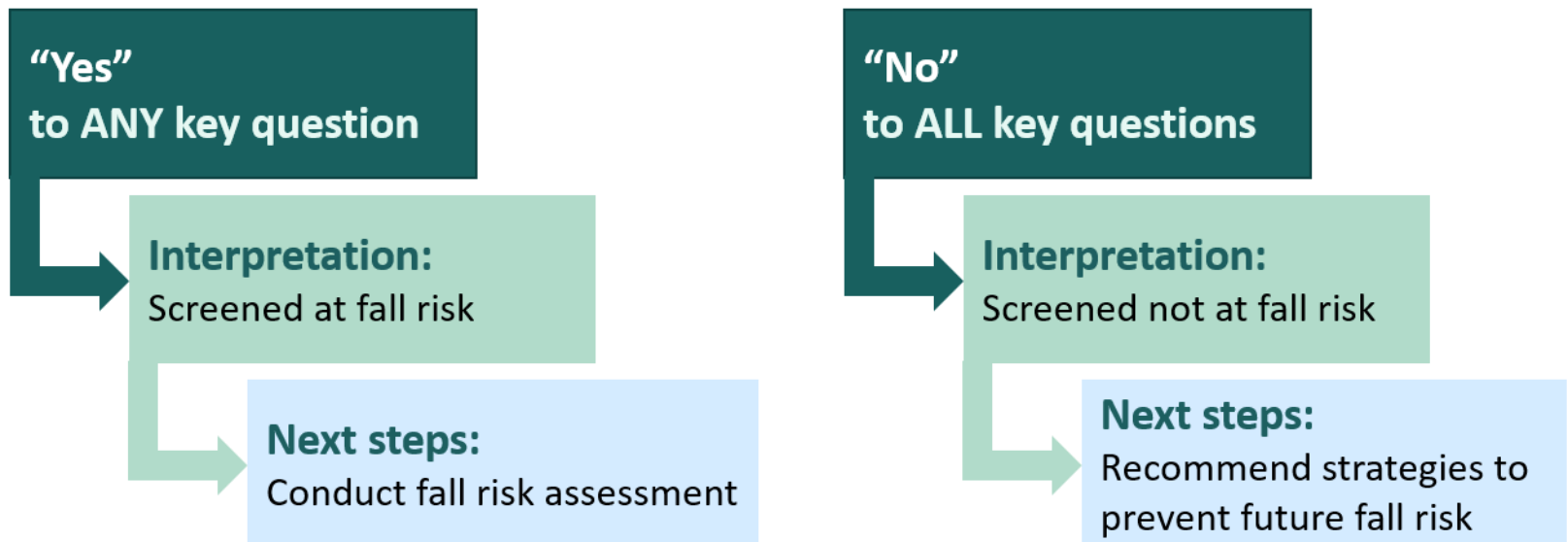
# Screening Tool: The Three Key Questions

## Ask your patient these questions:

- Have you fallen in the past year?
- Do you feel unsteady when standing or walking?
- Do you worry about falling?

## RESULTS

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# Screening Tool: *Stay Independent* Questionnaire

## Check Your Risk for Falling

Circle "Yes" or "No" for each statement below			Why it matters
Yes (2)	No (0)	I have fallen in the past year.	People who have fallen once are likely to fall again.
Yes (2)	No (0)	I use or have been advised to use a cane or walker to get around safely.	People who have been advised to use a cane or walker may already be more likely to fall.
Yes (1)	No (0)	Sometimes I feel unsteady when I am walking.	Unsteadiness or needing support while walking are signs of poor balance.
Yes (1)	No (0)	I steady myself by holding onto furniture when walking at home.	This is also a sign of poor balance.
Yes (1)	No (0)	I am worried about falling.	People who are worried about falling are more likely to fall.
Yes (1)	No (0)	I need to push with my hands to stand up from a chair.	This is a sign of weak leg muscles, a major reason for falling.
Yes (1)	No (0)	I have some trouble stepping up onto a curb.	This is also a sign of weak leg muscles.
Yes (1)	No (0)	I often have to rush to the toilet.	Rushing to the bathroom, especially at night, increases your chance of falling.
Yes (1)	No (0)	I have lost some feeling in my feet.	Numbness in your feet can cause stumbles and lead to falls.
Yes (1)	No (0)	I take medicine that sometimes makes me feel light-headed or more tired than usual.	Side effects from medicines can sometimes increase your chance of falling.
Yes (1)	No (0)	I take medicine to help me sleep or improve my mood.	These medicines can sometimes increase your chance of falling.
Yes (1)	No (0)	I often feel sad or depressed.	Symptoms of depression, such as not feeling well or feeling slowed down, are linked to falls.
<b>Total</b> _____		Add up the number of points for each "yes" answer. If you scored 4 points or more, you may be at risk for falling. Discuss this brochure with your doctor.	

This checklist was developed by the Greater Los Angeles VA Geriatric Research Education Clinical Center and affiliates and is a validated fall risk self-assessment tool (Rubenstein et al. J Safety Res; 2011; 42(6)493-499). Adapted with permission of the authors.

## Stay Independent

Learn more about fall prevention.



**STEADI**  
 Reducing Elderly Accidents,  
 Deaths & Injuries

# Screening Tool: *Stay Independent Questionnaire*

## RESULTS

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### **Score of 4 or more**

**Interpretation:** Screened at fall risk

**Next steps:** Conduct fall risk assessment

### **Score less than 4 and patient fell in the past year**

**Interpretation:** Screened at fall risk

**Next steps:** Conduct fall risk assessment

### **Score less than 4**

**Interpretation:** Screened not at fall risk

**Next steps:** Recommend strategies to prevent future fall risk

# Tips to Implement Fall Screening

- **Integrate screening tools to fit your clinic workflow**
  - **Example:** Add to usual patient intake forms
- **Find an optimal time to ask screening questions**
  - Before an office visit—by phone or online portal
  - During routine office visit—in the waiting room or the exam room
  - During Welcome to Medicare Examination or Medicare Annual Wellness Visit
- **Set screening goals and monitor progress**
  - **Example:**
    - **Goal:** We will screen 50% of our older adult patients in 30 days
    - **Monitor:** Percent of older patients screened for fall risk in the past 30 days
    - Share progress with team members

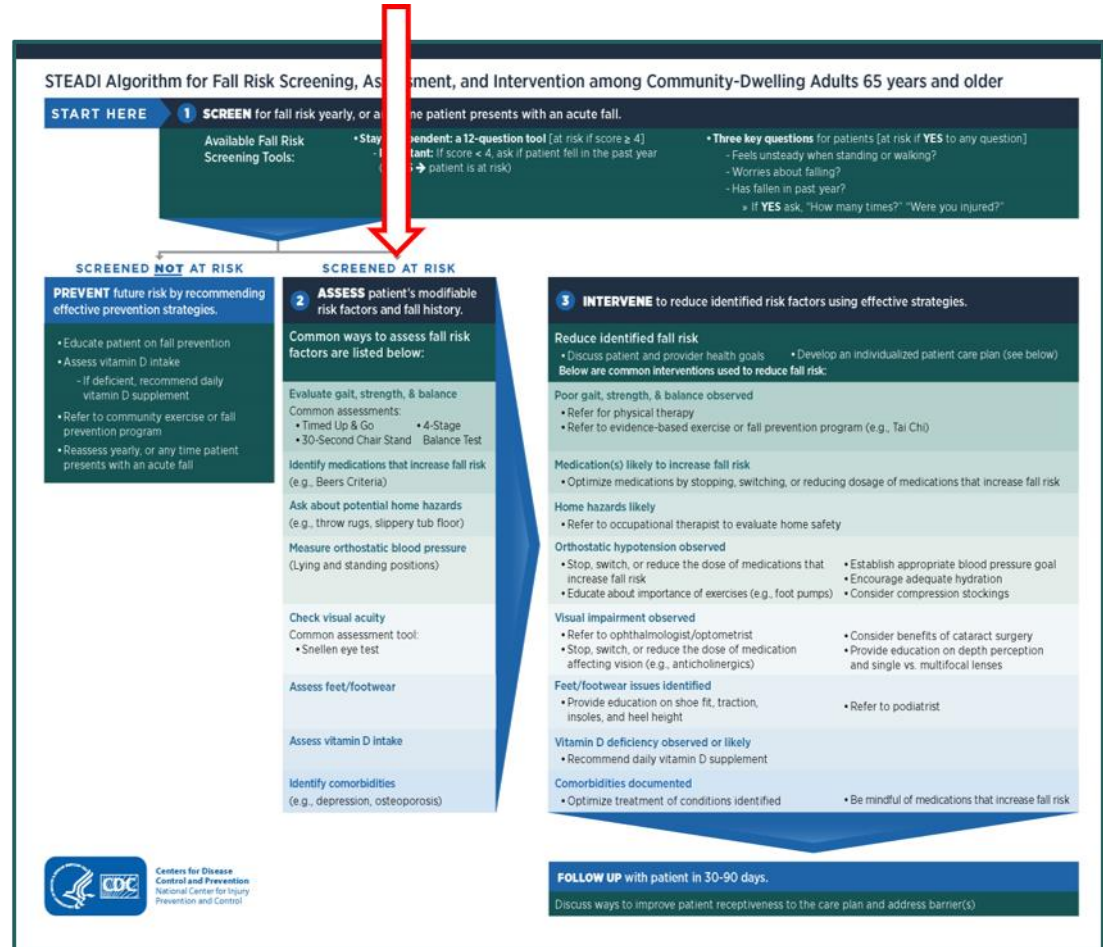


# STEADI: Assessment

To identify modifiable fall risk factors in at-risk patients:

Conduct a falls history.  
Example questions:

- How many times have you fallen?
- Did you have any symptoms prior to your fall?
- Where and when did you fall?



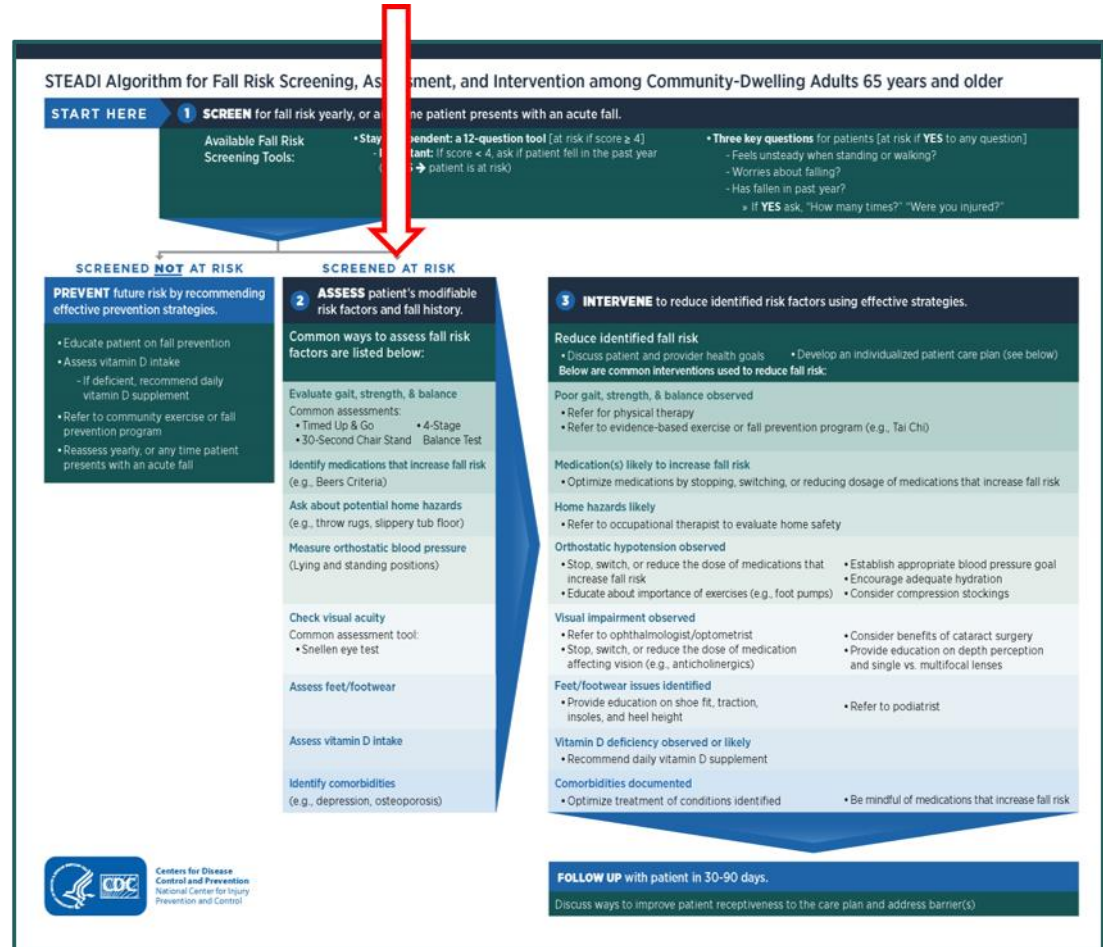


# STEADI: Assessment

To identify modifiable fall risk factors in at-risk patients:

Conduct assessments:

- Evaluate gait, strength, and balance
- Identify medications that increase fall risk
- Ask about potential home hazards
- Measure orthostatic blood pressure
- Check visual acuity
- Assess feet and footwear
- Assess vitamin D intake
- Identify comorbidities



# STEADI: Intervention



# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Gait, strength, and balance deficits</b>	Conduct tests: <ul style="list-style-type: none"><li>- Timed Up and Go (TUG)</li><li>- 30-second chair stand</li><li>- 4-stage balance</li></ul>	<ul style="list-style-type: none"><li>• Physical therapy</li><li>• Evidence-based fall prevention program</li></ul>

## STEADI Resource

- **Handouts:** *TUG, 30-second chair stand, and 4-stage balance tests*
- **Instructional videos:** *TUG, 30-second chair stand, and 4 stage balance tests*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
Medications that increase fall risk	Conduct a comprehensive medication review	Medication management <ul style="list-style-type: none"><li>- <b>Stop</b> medications when possible</li><li>- <b>Switch</b> to safer alternatives</li><li>- <b>Reduce</b> to lowest effective dose</li></ul>

## STEADI Resource

**Fact sheets:** *Medications Linked to Falls, SAFE Medication Review Framework, STEADI-Rx Pharmacist Flyer*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
Home hazards	Ask patients and their family members about home safety	<ul style="list-style-type: none"><li>• Refer to occupational therapy</li><li>• Recommend tips to improve home safety</li></ul>

## STEADI Resource

Educational material: *Check for Safety*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Orthostatic hypotension</b>  The patient has orthostatic hypotension if systolic blood pressure drops by at least 20 mm Hg or diastolic by at least 10 mm Hg	Measure orthostatic blood pressure <ol style="list-style-type: none"><li>1. Have the patient lie down for 5 minutes</li><li>2. Check blood pressure</li><li>3. Have the patient stand</li><li>4. Check blood pressure within 3 minutes</li></ol>	<ul style="list-style-type: none"><li>• Treat underlying cause</li><li>• Adjust medications if warranted</li></ul>

## STEADI Resource

**Handout:** *Measuring Orthostatic Blood Pressure*

**Educational material:** *Postural Hypotension*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Vision impairment</b>	<ul style="list-style-type: none"><li>• Ask patients about vision problems</li><li>• Use Snellen eye chart to assess visual acuity</li><li>• Ask if patient uses bifocal lenses when outdoors</li></ul>	<ul style="list-style-type: none"><li>• Refer to ophthalmology or optometry</li><li>• Recommend single distance lenses for walking outside</li></ul>

## STEADI Resource

**Guide:** *Coordinated Care Plan to Prevent Older Adult Falls*

**Educational materials:** *Family Caregivers: Protect your Loved Ones from Falling, What You Can Do to Prevent Falls*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Feet or footwear issues</b>	<ul style="list-style-type: none"><li>• Look for foot deformities, deficits in sensation, or pain</li><li>• Assess for inappropriate footwear</li></ul>	<ul style="list-style-type: none"><li>• Counsel on shoe fit, insoles, and heel height</li><li>• Refer to podiatry</li></ul>

## STEADI Resource

**Guide:** *Coordinated Care Plan to Prevent Older Adult Falls*

**Educational materials:** *Family Caregivers: Protect your Loved Ones from Falling, What You Can Do to Prevent Falls*



# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Vitamin D deficiency</b>	Ask about patient's dietary vitamin D intake, use of vitamin D supplements, and sun exposure	Consider increasing dietary vitamin D or daily vitamin D supplements if the patient has a vitamin D deficiency

## STEADI Resource

**Guide:** *Coordinated Care Plan to Prevent Older Adult Falls*

**Educational materials:** *Family Caregivers: Protect your Loved Ones from Falling, What You Can Do to Prevent Falls*

# Components of STEADI: Examples

Fall Risk Factor	Assessment	Intervention
<b>Comorbidities</b>	Screen for comorbidities such as osteoporosis, depression, dementia, incontinence	Optimize treatments of identified conditions

## STEADI Resource

**Guide:** *Coordinated Care Plan to Prevent Older Adult Falls*

**Educational materials:** *Family Caregivers: Protect your Loved Ones from Falling, What You Can Do to Prevent Falls*

# Follow-Up

## Follow up with patients within 30–90 days

- Review plan of care
- Encourage adherence to recommendations
- Discuss barriers to adherence

### STEADI Resource

**Fact sheet:** *Talking with Patients about Fall Prevention*

**Educational materials:** *Family Caregivers: Protect your Loved Ones from Falling*

# Tips to Implement Fall Assessment & Intervention

- Divide tasks among clinic staff, including follow-up
- Pilot the fall prevention program before expanding
- Seek feedback from staff on progress and barriers
- Provide refresher training at regular intervals
- Engage patient and caregivers

## STEADI Resource

**Wall chart:** *Practice Fall Prevention Wall Chart*

# Your Fall Prevention Program

- Which fall risk factors will we focus on?
- How will our clinic workflow adapt STEADI's screen, assess, and intervene steps?
- How will the electronic health record incorporate fall prevention?
- How will the practice bill for fall prevention?
- How will the practice monitor and evaluate the program?
- Describe how members of the practice can play a role in fall prevention.

## STEADI Resource

**Guides:** *Coordinated Care Plan to Prevent Older Adult Falls, STEADI: Evaluation Guide for Older Adult Clinical Fall Prevention Programs*

# Team and Roles

**Every member can play an important role in fall prevention**

## **Your team will include?**

- Front office staff
- Office manager
- Medical assistants
- Care coordinator
- Nurses
- Physician, physician assistants, or nurse practitioners
- Pharmacists
- Physical therapists
- Occupational therapists

# Let's Do Our Part to Prevent Falls

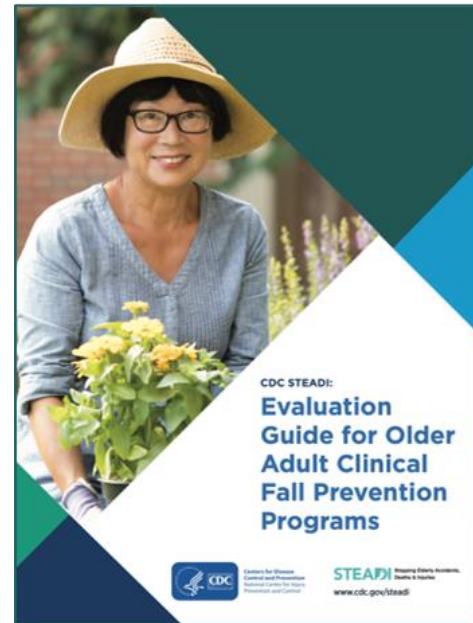
- **Learn about older adult fall prevention and STEADI resources**
  - Available at [www.cdc.gov/steady](http://www.cdc.gov/steady)
- **Earn continuing education with an online training on fall prevention**
  - STEADI: Empowering Healthcare Providers to Reduce Fall Risk  
Available at [www.cdc.gov/steady/training.html](http://www.cdc.gov/steady/training.html)
- **Hear from other healthcare providers on their STEADI experience**
  - Available at [www.cdc.gov/steady/about/success-stories.html](http://www.cdc.gov/steady/about/success-stories.html)

# Appendix: Resource Gallery

## STEADI Guides



*Coordinated Care Plan to Prevent Older Adult Falls*



*Evaluation Guide for Older Adult Clinical Fall Prevention Programs*



## Appendix: Resource Gallery

# STEADI Assessment Handouts

ASSESSMENT		Status	
<h1>Timed Up &amp; Go (TUG)</h1>		Date _____	
Purpose: To assess mobility		Time _____ (10 sec limit)	
Equipment: A stopwatch			
<p><b>Directions:</b> Patients wear their regular footwear and use a walking aid, if needed. Begin by having the patient sit down in a standard arm chair and identify a line 3 meters, or 10 feet away, on the floor.</p>			
<p>① Instruct the patient: "You will be standing up, walking, and sitting back down. I will be timing you."</p> <p>When I say "Go," I want you to:</p> <ul style="list-style-type: none"><li>1. Stand up from the chair</li><li>2. Walk to the line on your arm or normal gait.</li><li>3. Turn</li><li>4. Walk back to the chair at your normal pace</li><li>5. Sit down again</li></ul>		<p><b>NOTE:</b> Measure the time from when you say "Go" until you say "Stop."</p>	
<p>② On the word "Go," begin timing.</p> <p>③ Stop timing after patient sits back down.</p> <p>④ Record time.</p>		<p><b>Observe the patient's:</b> <i>anxious attitude, gait, stride length, and sway.</i></p> <p>Check all that apply:</p> <ul style="list-style-type: none"><li><input type="checkbox"/> Slow/tired gait</li><li><input type="checkbox"/> Use of alternate gait</li><li><input type="checkbox"/> Shuffled stride</li><li><input type="checkbox"/> Use of an arm or arm-aid</li><li><input type="checkbox"/> Stumbling or off-balance</li><li><input type="checkbox"/> Shuffling</li><li><input type="checkbox"/> Drooping shoulders</li><li><input type="checkbox"/> Feet not under shoulder</li><li><input type="checkbox"/> Feet not under hip</li><li><input type="checkbox"/> Feet not under knee</li><li><input type="checkbox"/> Feet not under ankle</li></ul> <p>These signs may signify neurological problems that require further evaluation.</p>	
<p>Time on Stopwatch: _____</p> <p>As an older adult who will be 70 seconds to complete the TUG, it is safe to begin.</p>			
<p>CC's: 5.03 (Fall risk) and measure gait on the ground, stairs, and outdoors to reduce the patient's fall risk. The steps, instructions, and goals are listed below.</p>			
			

*Timed Up & Go*  
(TUG)

[illegible]

## 4-Stage Balance

30-SECOND CHAIRSTAND

## 30-Second Chair Stand

**Purpose:** To test leg strength and endurance.  
**Equipment:** A chair with a straight back without armrests (about 17" high) and a chairlift (if).

### 1) National Protocol

- 1. Perform 10 repetitions.
- 2. If the participant cannot complete 10 repetitions at the first trial, the participant will perform 5 repetitions at the first trial, and then 5 repetitions at the second trial.
- 3. If the participant cannot complete 5 repetitions at the second trial, the participant will perform 2 repetitions at the second trial, and then 3 repetitions at the third trial.
- 4. If the participant cannot complete 2 repetitions at the third trial, the participant will perform 1 repetition at the third trial, and then 1 repetition at the fourth trial.

10  
5  
2  
1

30-SECOND CHAIR

**Chair Stand**  
**Actual chair stand**

Age	Male	Female
18-24	1.0 - 1.5	0.8 - 1.2
25-34	1.0 - 1.5	0.8 - 1.2
35-44	1.0 - 1.5	0.8 - 1.2
45-54	0.8 - 1.2	0.6 - 1.0
55-64	0.6 - 1.0	0.4 - 0.8
65-74	0.4 - 0.8	0.2 - 0.6
75-84	0.2 - 0.6	0.1 - 0.4
85-94	0.1 - 0.4	0.0 - 0.2

Stand on a chairlift or chair with a straight back without armrests (about 17" high).

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
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 www.nia.nih.gov

### 30-Second Chair Stand

**Measuring Orthostatic Blood Pressure**

1. Rest the patient for 5 min for 1 minute

2. Measure blood pressure and pulse rate

3. Have the patient stand

4. Repeat blood pressure and pulse rate measurement after standing 1 and 3 minutes

5. In the 1st column fill in the blood pressure and pulse rate measurements in standard format

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
Supine	120	80	90	100	110	120	130	140	150	160
Standing	120	80	90	100	110	120	130	140	150	160
1st	120	80	90	100	110	120	130	140	150	160
3rd	120	80	90	100	110	120	130	140	150	160

Name \_\_\_\_\_

Age \_\_\_\_\_

Sex \_\_\_\_\_

DOB \_\_\_\_\_



## Measuring Orthostatic Blood Pressure

# Appendix: Resource Gallery

## STEADI Fact Sheets

**FACT SHEET**  
**Medications Linked to Falls**

Review medications with all patients 65 and older. Medication management can reduce interactions and sideeffects that may lead to falls.

**STOP** medications when possible.  
**SWITCH** to safer alternatives.  
**REDUCE** medications to the lowest effective dose.

Check for psychoactive medications, such as:

- Anticholinergics
- Antidepressants
- Antipsychotics
- Benzodiazepines
- Quinins
- Sedating hypnotics

Review prescription drugs, over-the-counter medications, and herbal supplements, which can cause dizziness, sedation, confusion, blurred vision, or orthostatic hypotension. These include:

- Anticholinergics
- Anticholinergics
- Anticholinergics
- Medications affecting blood pressure
- Medications affecting blood pressure
- Medications affecting blood pressure

Develop a patient plan that includes medication changes and a monitoring plan for potential side effects. Implement other strategies, including non-pharmacologic options to manage conditions, address patient barriers, and reduce fall risk.

For information, see the CDC STEADI Toolkit (https://www.cdc.gov/steadi/toolkit/index.html). See the CDC STEADI Toolkit for additional information on how to screen, assess, and address fall risk in older adults.

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Medications Linked to Falls

**FACT SHEET**  
**SAFE**  
Medication Review Framework

Use this framework to conduct a medication review to help prevent older adult falls.

**A Team-based Approach**

Adapted from existing medication therapy management tools, developed and used by pharmacists, this review framework uses the **SAFE** process: **Screen, Assess, Formulate, and Educate.**

**S SCREEN**  
for medications that may increase fall risk.

**A ASSESS**  
the patient to best manage health conditions.

**F FORMULATE**  
the patient's medication action plan.

**E EDUCATE**  
the patient and caregiver about medication changes and fall prevention strategies.

Consider working with pharmacists, who are trained specifically in medication review and management.

Pharmacists are a valuable resource available to your healthcare team.



SAFE Medication Review Framework

**STEADI-Rx**

**Pharmacists can help reduce older adult falls.**

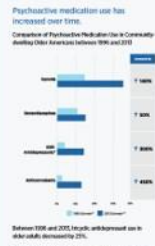
Certain medications increase the risk of falls among adults aged 65 and older. Psychoactive medications may cause side effects that increase the risk of falls by causing vision disturbances, orthostatic hypotension, confusion, and sleepiness.

In 2015, over 50% of Medicare beneficiaries used a psychoactive medication. Over the year:

- 30% used one psychoactive medication class.
- 15% used two psychoactive medication classes.
- 9% used three or more psychoactive medication classes.

Psychoactive medication use has increased over time.

Consideration of Psychoactive Medication Use in Community-Dwelling Older Americans between 1996 and 2010



Pharmacists can help.

Older adults report not knowing that medications can increase their fall risk, but they are willing to discuss and make changes to reduce that risk. As medication experts, you have an opportunity to help reduce fall risk.

**STEP 1:**  
Screen patient for fall risk at pharmacy.

**STEP 2:**  
Assess older adult's medications.

**STEP 3:**  
Coordinate care by sharing information with patient and provider.

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STEADI-Rx Pharmacist Flyer

**FACT SHEET**  
**Talking about Fall Prevention with Your Patients**

Many fall prevention strategies call for patients to change their behaviors by:

- Changing their medications
- Attending a fall prevention program
- Doing prescribed exercises
- Changing their home environment

We know that behavior change is difficult. Traditional advice and patient education often does not work. The Stages of Change model is used to assess an individual's readiness to act on a new, healthier behavior. Research on the change process depicts patients as always being in one of the five "stages" of change. Behavior change is seen as a dynamic process involving both cognition and behavior that moves a patient from being unconcerned, unaware, or unwilling to make a change (precontemplation) to considering a change (contemplation) to deciding and preparing to make a change (preparation) to changing behavior in the short term (action) and to continuing the new behavior for at least 6 months (maintenance).

The Stages of Change model has been validated and applied to a variety of behaviors, including:

- Exercise behavior
- Smoking cessation
- Contraceptive use
- Dietary behavior

**Stages of Change Model**

STAGE OF CHANGE	PATIENT COGNITION AND BEHAVIOR
Precontemplation	Does not think about change, is unaware or fearful. Does not believe in, or anticipate personal responsibility.
Contemplation	Considers benefits vs. costs of proposed behavior change.
Preparation	Experiments with small changes.
Action	Takes definitive action to change.
Maintenance	Maintains new behavior over time.

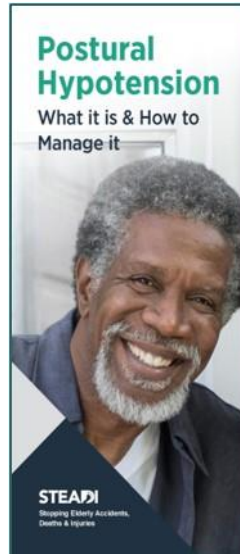
Adapted from Prochaska, J. O. (1996). The transtheoretical model of health behavior change. *Annual Review of Public Health, 17*, 1-15.



Talking about Fall Prevention with Your Patients

# Appendix: Resource Gallery

## STEADI Educational Materials



# Appendix: Resource Gallery

## Wall Chart and Algorithm

**Practice Fall Prevention**

Working together, healthcare providers and staff can identify and manage older patients' (age 65+) fall risk. Use this chart to determine who will conduct each fall prevention task. Multiple people may complete one task.

Tasks	Who Is Responsible?	What Is Involved?
Screen for fall risk early or at the time patient requests a visit		How the patient completes the five independent functions, or ask the patient these 3 screening questions: <ul style="list-style-type: none"> <li>• Have you fallen in the past year?</li> <li>• Do you feel unsteady when standing or walking?</li> <li>• Do you worry about falling?</li> </ul> <b>Fall risk, flag patient for additional assessment</b> Based on CDC's STEADI algorithm: <b>Know at risk, assess future risk by recommending effective prevention strategies.</b>
Evaluate gait, strength, and balance		Administer one or more of the following assessments: <ul style="list-style-type: none"> <li>• Timed Up and Go Test</li> <li>• 30-Second Chair Stand Test</li> <li>• 4-Gate Balance Test</li> </ul> <b>If appropriate is needed, refer patient to physical therapy or a fall prevention program (e.g., Tai Chi).</b>
Identify medications that increase fall risk		Conduct a medication review to identify patient medications that increase fall risk. <b>Prescriptions are likely to increase fall risk, consider stopping, switching, or reducing the dose of these medications.</b>  <b>Complete the home safety checklist inside the Check for Safety brochure. Home hazards are likely, refer patient to an occupational therapist.</b>
Ask about potential future hazards		1. Have the patient sit down for 5 minutes, then check blood pressure. 2. Then, have the patient stand up for 1 minute and repeat the blood pressure check. <b>If the patient's blood pressure drops at least 20 points, or 10 points after going from lying down to standing, that indicates orthostatic hypotension.</b> <b>To reduce hypotension:</b> <ul style="list-style-type: none"> <li>• Stop, switch, or reduce the dose of medications that increase fall risk.</li> <li>• Educate the patient to pause first 20 times before standing.</li> <li>• Establish appropriate blood pressure goal.</li> <li>• Encourage at least 48 oz of fluid daily.</li> <li>• Consider compression stockings.</li> </ul>
Perform orthostatic blood pressure		<b>Perform vision assessment (e.g., Snellen test).</b> <b>If visual impairment is observed:</b> <ul style="list-style-type: none"> <li>• Refer to optometrist/ophthalmologist.</li> <li>• Stop, switch, or reduce the dose of medication affecting vision (e.g., anticholinergics).</li> <li>• Consider the benefits of cataract surgery.</li> <li>• Provide education on depth perception and single vs. multifocal lenses.</li> </ul>
Check visual acuity		<b>Look for foot deformities, deficits in sensation, proprioception, and musculoskeletal function.</b> <b>Foot/leg/toe issues are identified:</b> <ul style="list-style-type: none"> <li>• Provide education on shoe fit, traction, creases, and heel height.</li> <li>• Refer to podiatrist.</li> </ul>
Assess feet and footwear		<b>Ask about patient's vitamin D intake.</b> <b>If deficiency is observed or likely, consider increasing dietary vitamin D or daily vitamin D supplements.</b>
Assess vitamin D		<b>Screen for comorbidities (e.g., depression, incontinence).</b> <b>If comorbidities are identified, optimize treatment of conditions identified:</b> <ul style="list-style-type: none"> <li>• Refer to patients about their condition.</li> <li>• Discuss patient and provider health goals.</li> <li>• Develop individualized patient care plan.</li> <li>• Develop a follow-up plan for each at-risk patient.</li> <li>• Discuss ways to improve patient responsiveness to the care plan and address barriers.</li> </ul>
Identify comorbidities		<b>Identify evidence-based community resources and fall prevention programs.</b> <b>Complete and implement a list of evidence programs:</b> <ul style="list-style-type: none"> <li>• Identify data needed to measure program success.</li> <li>• Work with organization/health staff to enable collection of the data.</li> <li>• Enter data into model of record.</li> <li>• Review results to ensure accuracy and relevance are recorded.</li> </ul>
Provide patient education		<b>Conduct staff training, including behavior and mind staff training.</b> <b>Monitor progress of your efforts.</b>
Follow-up with patient		
Link to community resources		
Collect feedback		
Phage program		

Refer to the STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention and the Coordinator Care Plan to Prevent Older Adult Falls for more information on how to screen, assess, and intervene to reduce your older patients' fall risk.

Practice Fall Prevention Wall Chart

**RESOURCE**

## Algorithm

for Fall Risk Screening, Assessment, and Intervention

As a healthcare provider, you are already aware that falls are a serious threat to the health and well-being of your older patients.

More than one out of four people 65 and older fall each year, and over 3 million are treated in emergency departments annually for fall injuries.

The CDC's STEADI initiative offers a coordinated approach to implementing the American and British Geriatrics Societies' clinical practice guideline for fall prevention. STEADI consists of three core elements: **Screen, Assess, and Intervene** to reduce fall risk.

The STEADI Algorithm for Fall Risk Screening, Assessment, and Intervention outlines how to implement these three elements.

**Additional tools and resources include:**

- Information about falls
- Case studies
- Conversation starters
- Screening tools
- Standardized gait and balance assessment tests (with instructional videos)
- Educational materials for providers, patients, and caregivers
- Online continuing education
- Information on medications linked to falls
- Clinical decision support for electronic health record systems

CDC's STEADI tools and resources can help you screen, assess, and intervene to reduce your patients' fall risk. For more information, visit [www.cdc.gov/steadi](http://www.cdc.gov/steadi).

Algorithm for Fall Risk Screening, Assessment, and Intervention (front page)

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