



AGE-FRIENDLY HEALTH CARE AND A FOCUS ON 4MS TO IMPROVE CARE OF OLDER ADULTS

A CME CONFERENCE SERIES

***DEVELOPED AND PRESENTED BY:
THE SAN DIEGO /IMPERIAL GERIATRIC EDUCATION CENTER (SDIGEC)***

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An In-Depth Look at Promoting Safe Mobility and Evaluating Fall Risk

December 2, 2021 @ 12:00pm

Presented by:

Emily Sladek, MD and James Templeman, MD

Please sign-in and complete an evaluation to receive CME credit for your participation using the link or QR code below:

https://ucsd.co1.qualtrics.com/jfe/form/SV_or13Cr4dk1FDYqy



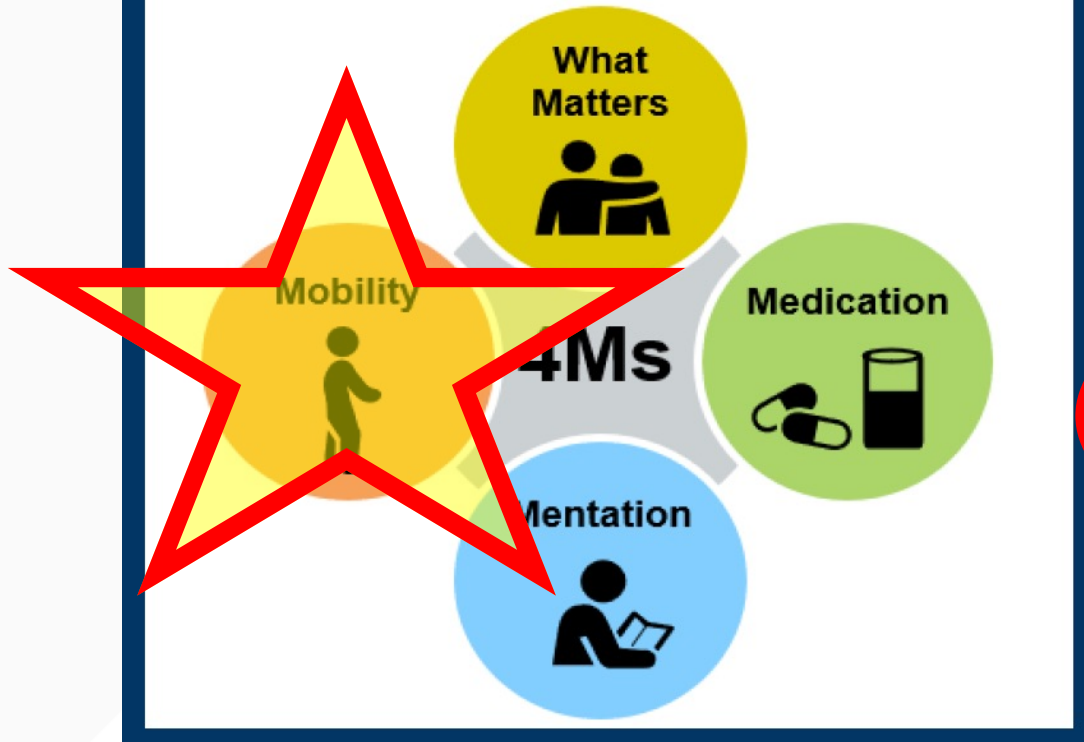
Please refer to the calendar invite for the syllabus for this series.

OBJECTIVES

- Identify how your health system addresses mobility for each older patient to maintain and improve mobility
 - Provide examples of how to assess mobility in each older patient
 - Discuss ways to maintain and improve mobility in older adults using patient care examples
-

Refresher on 4Ms of Age-Friendly Care

4Ms Framework of an Age-Friendly Health System



what Matters

Know and align care with what Matters to each older adult

Medications

Deprescribe or do not prescribe high- risk meds considering what matters most

Mobility

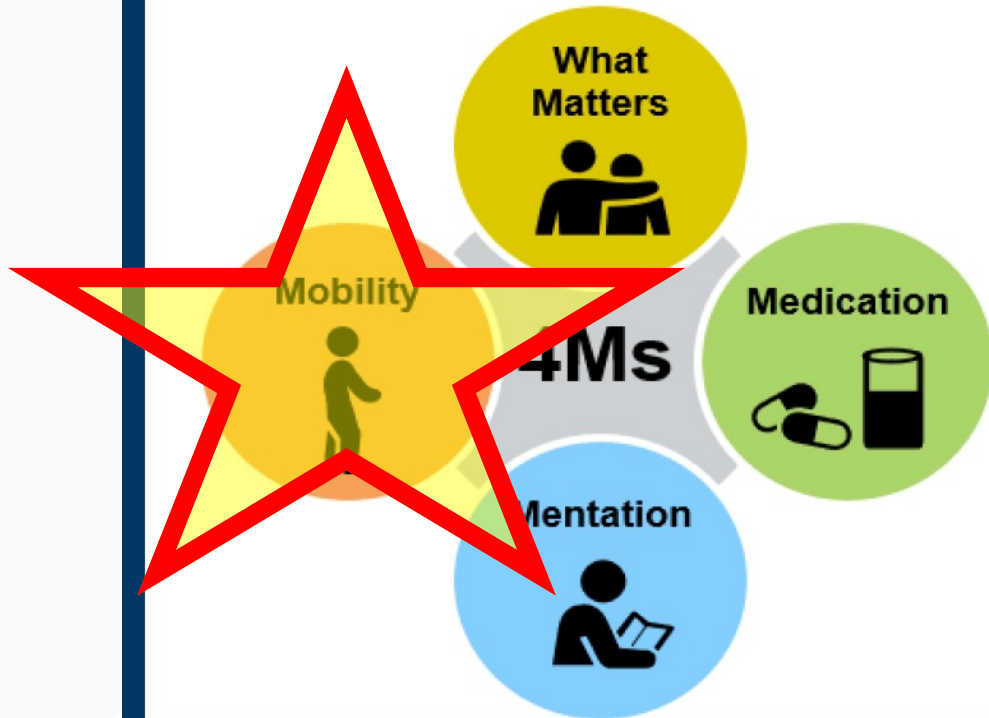
Promote safe mobility to maintain function and do what matters most

Mind

Prevent, diagnosis, and manage delirium, depression, and dementia to enjoy what matters most

Refresher on 4Ms of Age-Friendly Care - *Continued*

4Ms Framework of an Age-Friendly Health System

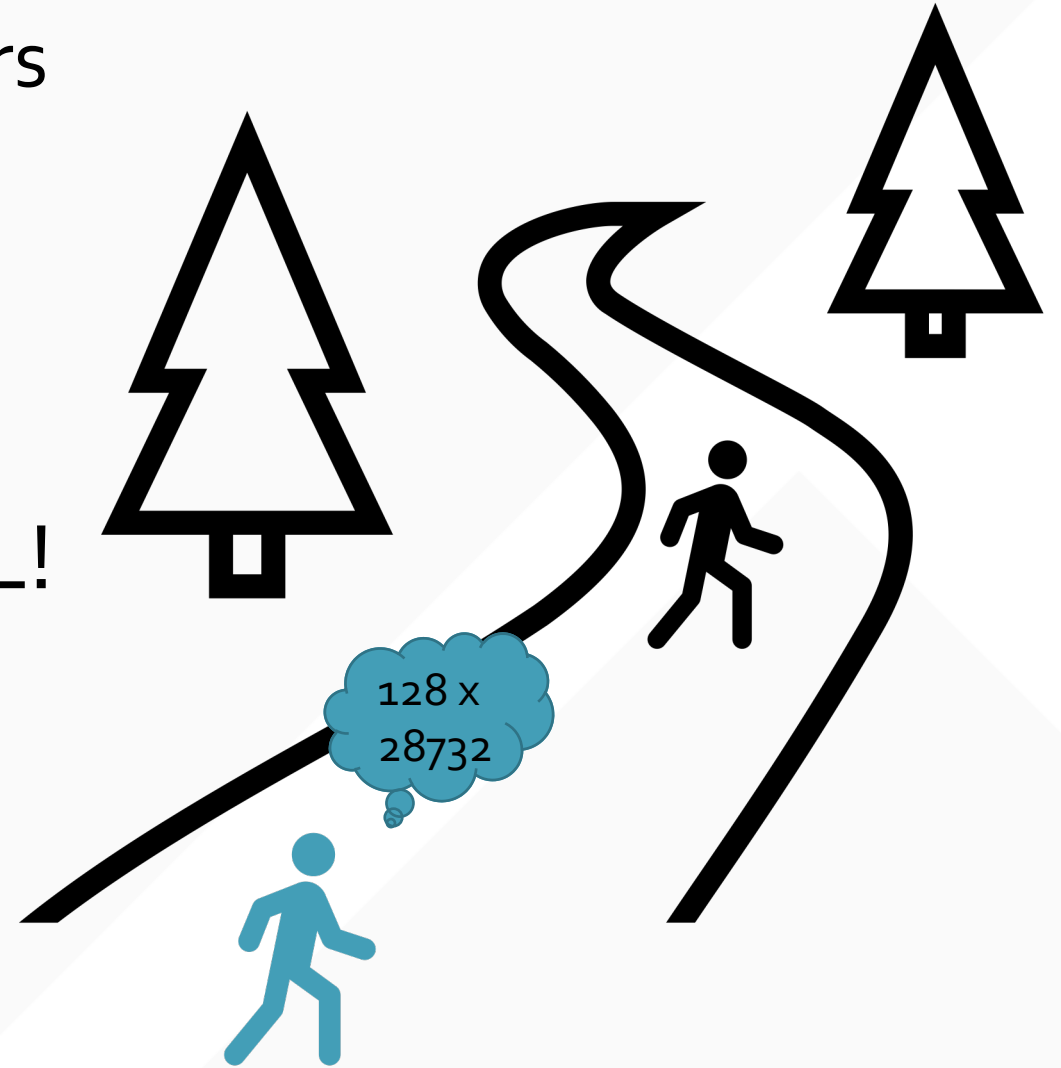


Age-Friendly Healthcare aims to:

- Follow essential set of **evidence-based practices**
- Cause **no harm**
- Focus on maintaining and improving **mobility** in older adults

What is Mobility?

- **Mobility** is the ability to move safely every day in order to do what matters
 - Walking
 - Carrying objects
 - Maintaining body position
- Mobility is **MULTIDIMENSIONAL!**
 - Physical function
 - Cognition
 - Social networks
 - Transportation



Reflection Question

Why ***safe mobility*** and not ***fall prevention***?



Why *safe mobility* and not *fall prevention*?

- For older adults, mobility:
 - Matters!
 - Is associated with independence
 - Improves function during and after hospitalization
- For clinicians, a focus on mobility:
 - Reduces risk of negative health outcomes (falls, fractures, skin tears, depression, delirium)
 - Is strongly correlated with survival
- For health systems, a focus on mobility:
 - Reduction in hospital costs
 - Avoid preventable morbidity and complications



Aim of Mobility Promotion

- Reframes question from “**How can we keep you from falling?**” to “**How do we maximize your mobility?**”
 - Ineffective "safety" interventions (i.e. “fall precautions”) **restrict** mobility
 - Goal: Maintain or improve multidimensional function that promotes participation and engagement
-

In a Nutshell

THIS!



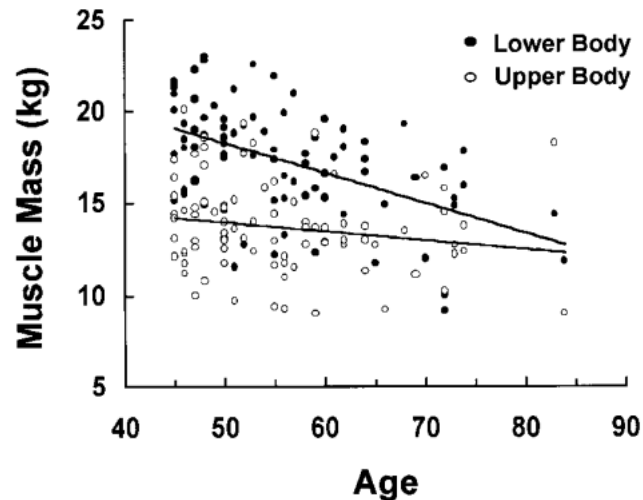
NOT THAT



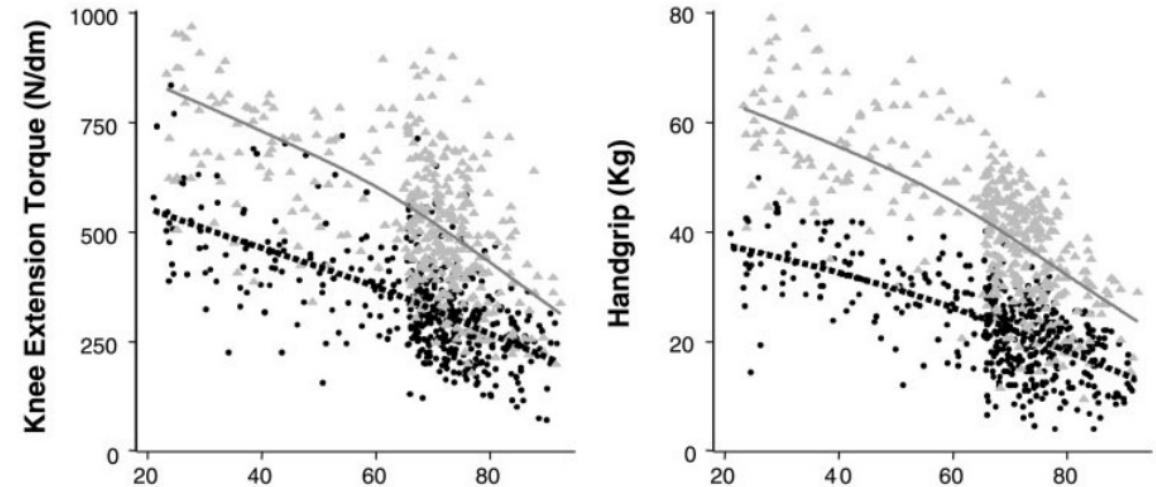
Do you have older patients that you feel would benefit from increased mobility and function?

Physical Mobility and Physical Function

- Physical function is the ability to perform both basic and instrumental activities of daily living (ADLs)
- There ARE age-associated changes in physiology that impact physical function



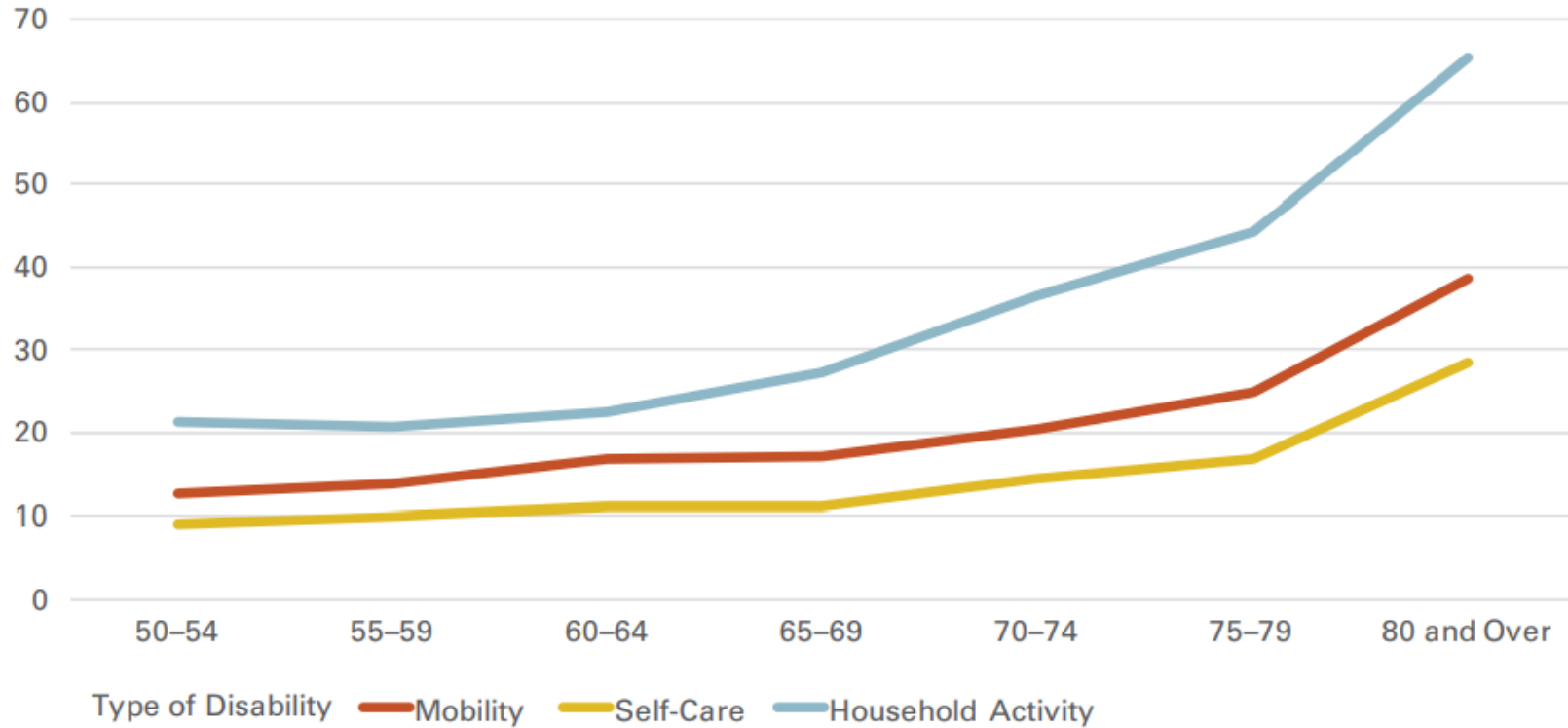
J Gerontol A Biol Sci Med Sci. 2016 Sep; 71(9): 1184–1194.



J Appl Physiol 2003; 95: 1851–1860

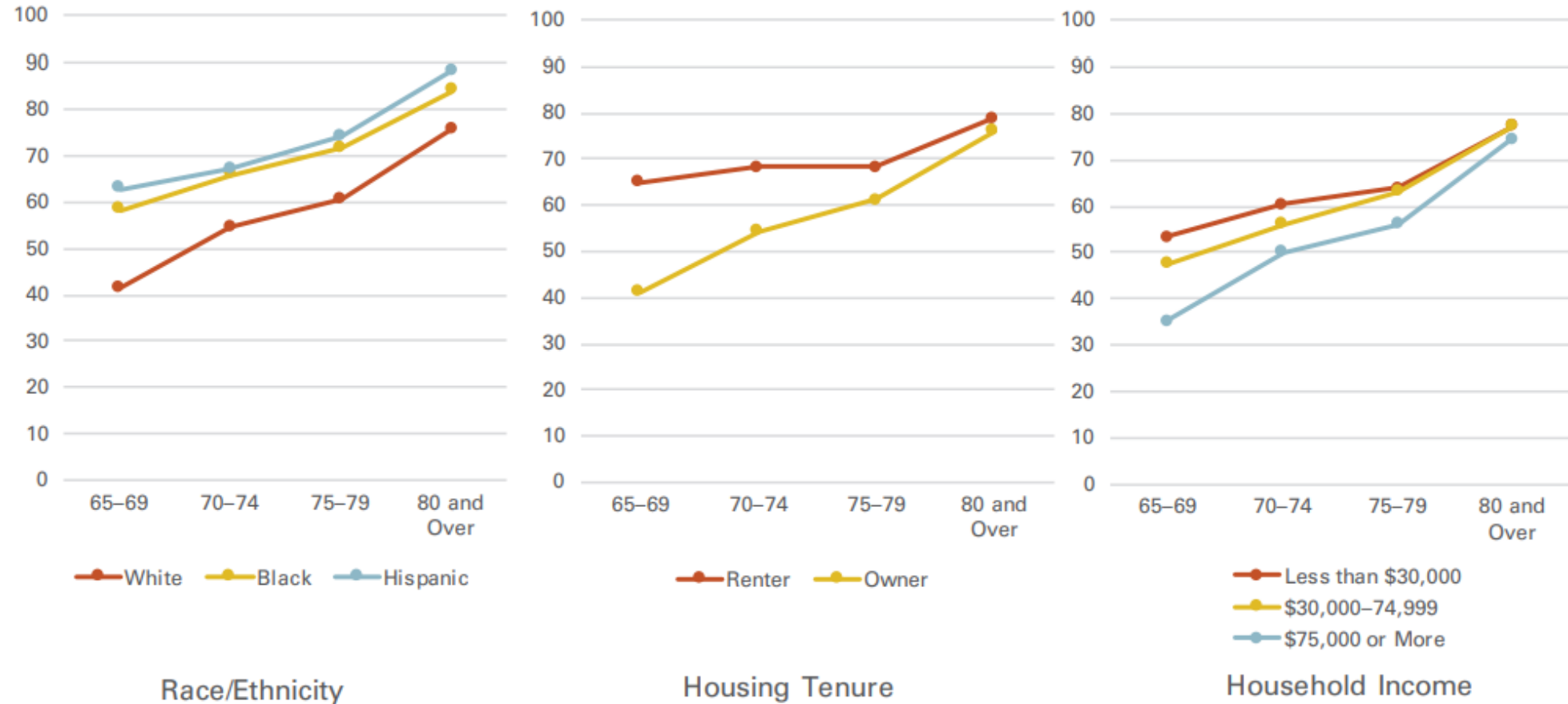
Prevalence of Reduced Mobility

Share of Population with Disabilities by Age Group (Percent)



Disability Increases With Age Across All Ethnic and Socioeconomic Statuses

Share of Households Aged 65 and over with Disabilities (Percent)



Reflection Question

How many times did you assess mobility in the last day? The last week?



Reflection Question

What are the *barriers* to assessing mobility?



Barriers and facilitators to improving mobility

Barriers:

- TIME!!
- Safety over function
- Fear of injury or fall
- Habit (e.g. bedrest orders)

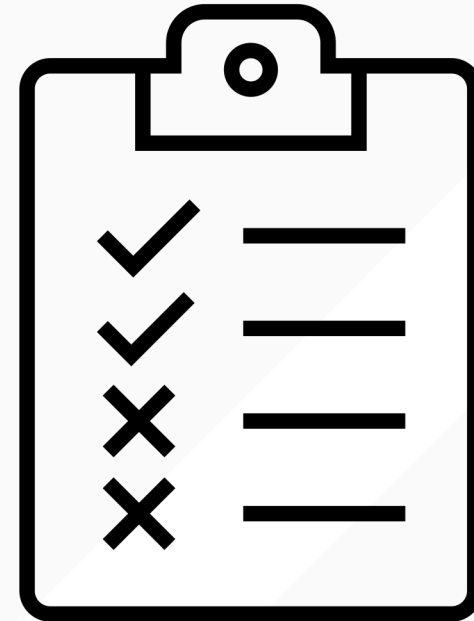
Facilitators:

- Engage patients and family
- Set SMART* goals
- Substitute mobility for other tasks of less value

*SMART = specific, measurable, attainable, realistic time-bound

How do we assess mobility?

What tools do you use to assess your patients' mobility?



Mobility Testing Must-Haves

- Set cut points indicative of functional limitation
 - Interventions for when cut points are met
 - Mindfulness about floors and ceilings
-

STEADI—Older Adult Fall Prevention

STEADI Stopping Elderly Accidents,
Deaths & Injuries





Clinical Resources



Patient & Caregiver Resources



Inpatient Care



Provider Training & Education



Outpatient Care



STAND STEADI Videos



Pharmacist Care (STEADI-R_x)



About STEADI

Key Resources


[STEADI Algorithm](#)  [PDF - 552KB]

[Success Stories](#)

[Coordinated Care Plan](#)  [PDF - 24 MB]

[Evaluation Plan](#)  [PDF - 4 MB]

[Stay Independent Brochure](#)  [PDF - 2MB]

[Family & Caregivers: Protect Your Loved Ones from Falling](#)  [PDF - 428KB]

STEDI Algorithm for Fall Risk Screening, Assessment, and Intervention among Community-Dwelling Adults 65 years and older

START HERE

1 SCREEN for fall risk yearly, or any time patient presents with an acute fall.

Available Fall Risk Screening Tools:

- **Stay Independent: a 12-question tool** [at risk if score ≥ 4]
 - **Important:** If score < 4 , ask if patient fell in the past year (If **YES** → patient is at risk)

- **Three key questions** for patients [at risk if **YES** to any question]
 - Feels unsteady when standing or walking?
 - Worries about falling?
 - Has fallen in past year?
 - » If **YES** ask, "How many times?" "Were you injured?"

SCREENED **NOT** AT RISK

PREVENT future risk by recommending effective prevention strategies.

- Educate patient on fall prevention
- Assess vitamin D intake
 - If deficient, recommend daily vitamin D supplement
- Refer to community exercise or fall prevention program
- Reassess yearly, or any time patient presents with an acute fall

SCREENED **AT** RISK

2 ASSESS patient's modifiable risk factors and fall history.

Common ways to assess fall risk factors are listed below:

Evaluate gait, strength, & balance

Common assessments:

- Timed Up & Go
- 4-Stage Balance Test
- 30-Second Chair Stand

Identify medications that increase fall risk (e.g., Beers Criteria)

Ask about potential home hazards (e.g., throw rugs, slippery tub floor)

Measure orthostatic blood pressure (Lying and standing positions)

Check visual acuity

Common assessment tool:

- Snellen eye test

Assess feet/footwear

Assess vitamin D intake

Identify comorbidities

(e.g., depression, osteoporosis)

3 INTERVENE to reduce identified risk factors using effective strategies.

Reduce identified fall risk

- Discuss patient and provider health goals
 - Develop an individualized patient care plan (see below)
- Below are common interventions used to reduce fall risk:

Poor gait, strength, & balance observed

- Refer for physical therapy
- Refer to evidence-based exercise or fall prevention program (e.g., Tai Chi)

Medication(s) likely to increase fall risk

- Optimize medications by stopping, switching, or reducing dosage of medications that increase fall risk

Home hazards likely

- Refer to occupational therapist to evaluate home safety

Orthostatic hypotension observed

- Stop, switch, or reduce the dose of medications that increase fall risk
- Educate about importance of exercises (e.g., foot pumps)
- Establish appropriate blood pressure goal
- Encourage adequate hydration
- Consider compression stockings

Visual impairment observed

- Refer to ophthalmologist/optometrist
- Stop, switch, or reduce the dose of medication affecting vision (e.g., anticholinergics)
- Consider benefits of cataract surgery
- Provide education on depth perception and single vs. multifocal lenses

Feet/footwear issues identified

- Provide education on shoe fit, traction, insoles, and heel height
- Refer to podiatrist

Vitamin D deficiency observed or likely

- Recommend daily vitamin D supplement

Comorbidities documented

- Optimize treatment of conditions identified
- Be mindful of medications that increase fall risk

FOLLOW UP with patient in 30-90 days.

Discuss ways to improve patient receptiveness to the care plan and address barrier(s)



Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

ASSESSMENT

Timed Up & Go (TUG)

Purpose: To assess mobility

Equipment: A stopwatch

Directions: Patients wear their regular footwear and can use a walking aid, if needed. Begin by having the patient sit back in a standard arm chair and identify a line 3 meters, or 10 feet away, on the floor.

① Instruct the patient:

When I say “Go,” I want you to:

1. Stand up from the chair.
2. Walk to the line on the floor at your normal pace.
3. Turn.
4. Walk back to the chair at your normal pace.
5. Sit down again.

NOTE:

Always stay by the patient for safety.

② On the word “Go,” begin timing.

③ Stop timing after patient sits back down.

④ Record time.

Time in Seconds:

An older adult who takes ≥ 12 seconds to complete the TUG is at risk for falling.

CDC's STEADI tools and resources can help you screen, assess, and intervene to reduce your patient's fall risk. For more information, visit www.cdc.gov/steady

Patient _____

Date _____

Time _____ AM PM

OBSERVATIONS

Observe the patient's postural stability, gait, stride length, and sway.

Check all that apply:

- Slow tentative pace
- Loss of balance
- Short strides
- Little or no arm swing
- Steadying self on walls
- Shuffling
- En bloc turning
- Not using assistive device properly

These changes may signify neurological problems that require further evaluation.

Watch How to Conduct the Test (1:28)

The video player shows a blue background with the CDC logo in the top left and the STEADI logo in the bottom right. The title 'The Timed Up and Go (TUG) Test' is displayed in white text. A large play button is centered on the screen. The STEADI logo includes the text 'Stopping Elderly Accidents, Deaths & Injuries'.



Centers for Disease
Control and Prevention
National Center for Injury
Prevention and Control

STEADI Stopping Elderly Accidents,
Deaths & Injuries

ASSESSMENT

30-Second Chair Stand

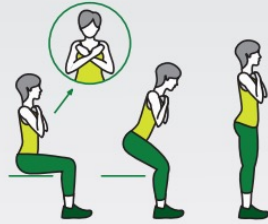
Purpose: To test leg strength and endurance

Equipment: A chair with a straight back without arm rests (seat 17" high), and a stopwatch.

① Instruct the patient:

1. Sit in the middle of the chair.
2. Place your hands on the opposite shoulder crossed, at the wrists.
3. Keep your feet flat on the floor.
4. Keep your back straight, and keep your arms against your chest.
5. On "Go," rise to a full standing position, then sit back down again.
6. Repeat this for 30 seconds.

NOTE:
Stand next to the patient for safety.



SCORING

Chair Stand
Below Average Scores

AGE	MEN	WOMEN
60-64	< 14	< 12
65-69	< 12	< 11
70-74	< 12	< 10
75-79	< 11	< 10
80-84	< 10	< 9
85-89	< 8	< 8
90-94	< 7	< 4

A below average score indicates a risk for falls.

Number: _____ Score: _____

CDC's STEADI tools and resources can help you screen, assess, and intervene to reduce your patient's fall risk. For more information, visit www.cdc.gov/steadi



Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

2017

STEADI Stopping Elderly Accidents, Deaths & Injuries

ASSESSMENT

The 4-Stage Balance Test

Purpose: To assess static balance

Equipment: A stopwatch

Directions: There are four standing positions that get progressively harder to maintain. You should describe and demonstrate each position to the patient. Then, stand next to the patient, hold their arm, and help them assume the correct position. When the patient is steady, let go, and time how long they can maintain the position, but remain ready to assist the patient if they should lose their balance.

- ▶ If the patient can hold a position for 10 seconds without moving their feet or needing support, go on to the next position.
- ▶ If not, **STOP** the test.

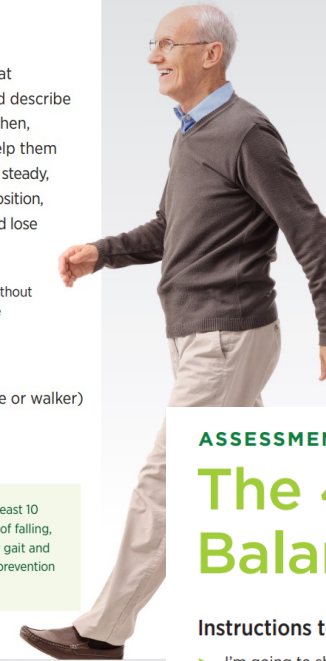
Patients should not use an assistive device (cane or walker) and they should keep their eyes open.

An older adult who cannot hold the tandem stand for at least 10 seconds is at increased risk of falling. To reduce their risk of falling, you might consider referring them to physical therapy for gait and balance exercises, or refer them to an evidence-based fall prevention program, such as Tai Chi.



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National Center for Injury Prevention and Control

2017



ASSESSMENT CONTINUED

The 4-Stage Balance Test





Patient _____

Date _____

Time _____ AM PM

Instructions to the patient:

- ▶ I'm going to show you four positions.
- ▶ Try to stand in each position for 10 seconds.
- ▶ You can hold your arms out, or move your body to help keep your balance, but don't move your feet.
- ▶ For each position I will say, "Ready, begin." Then, I will start timing. After 10 seconds, I will say, "Stop."





	① Stand with your feet side-by-side.	Time: _____ seconds
	② Place the instep of one foot so it is touching the big toe of the other foot.	Time: _____ seconds
	③ Tandem stand: Place one foot in front of the other, heel touching toe.	Time: _____ seconds
	④ Stand on one foot.	Time: _____ seconds

Notes:

Many falls can be prevented.

By making some changes, you can lower your chances of falling.

Four things YOU can do to prevent falls:

-  Have your healthcare provider review your medicines.
-  Exercise to improve your balance and strength.
-  Have your eyes and feet checked.
-  Make your home safer.

For more information, contact Centers for Disease Control and Prevention 1-(800)-CDC-INFO (232-4636) or visit www.cdc.gov/steady

For information about fall prevention, visit go.usa.gov/xN9XA

For more information about hypotension, visit www.mayoclinic.com or www.webmd.com



Centers for Disease Control and Prevention
National Center for Injury Prevention and Control

What YOU Can Do to Prevent Falls

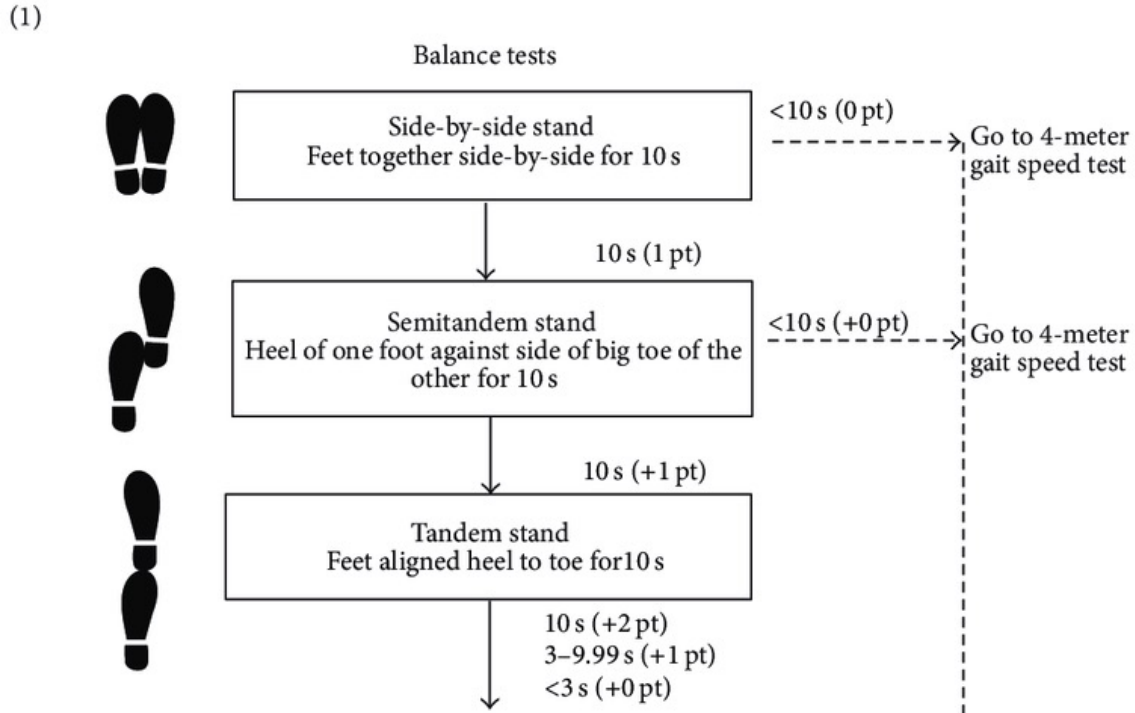


STEADY

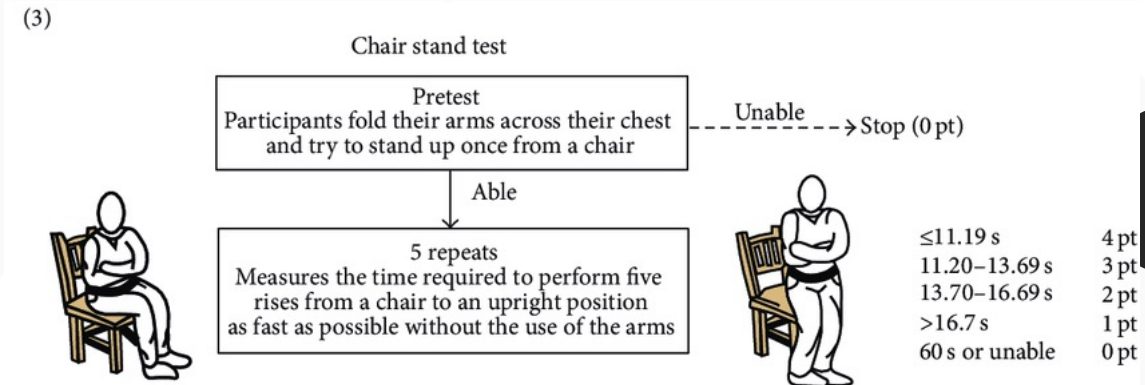
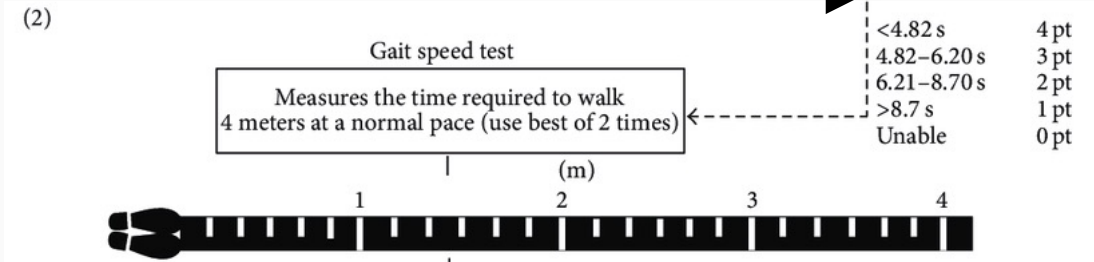
Stopping Elderly Accidents,
Deaths & Injuries

Multifactoral Mobility Assessments: Short Physical Performance Battery

Short physical performance battery



- Each test scored from 0-4
- Total score 0-12
- Change in +1.0 is considered substantial



Multifactoral Mobility Assessments: Senior Fitness Test

Test methodology for Senior Fitness Test

Assessment category	Test item	Test description
Lower body flexibility	Chair sit-and-reach test	To be seated in such a way that he/she should come at the front edge of the seat while keeping their legs extended with ankle dorsiflexed. Secondly to reach the toes of extended legs by their hands and the measurement taken with a ruler (in centimetres) by examiner between the participant finger and the tips of the toes.
Upper body flexibility	Back scratch test	Hands to be brought towards the back (one hand from above the shoulder and other hand from middle of back) and to touch each hand. Measurement taken in centimetres by examiner between the extended middle fingers of the participants.
Lower body strength	30-second chair stand test	Number of full stands in 30 second with arms folded across chest
Upper body strength	30-second arm curl test	Number of bicep curls in 30 second holding hand weight (women 5 pound; men 8 pound)
Agility/dynamic balance	8-foot up-and-go test	Number of seconds required to get up from seated position, walk 8 foot, turn, and return to seated position on chair
Aerobic endurance	2-minute step test	Number of full steps completed in 2 minutes, raising each knee to point midway between patella and iliac crest

Gait as the (new) Fifth Vital

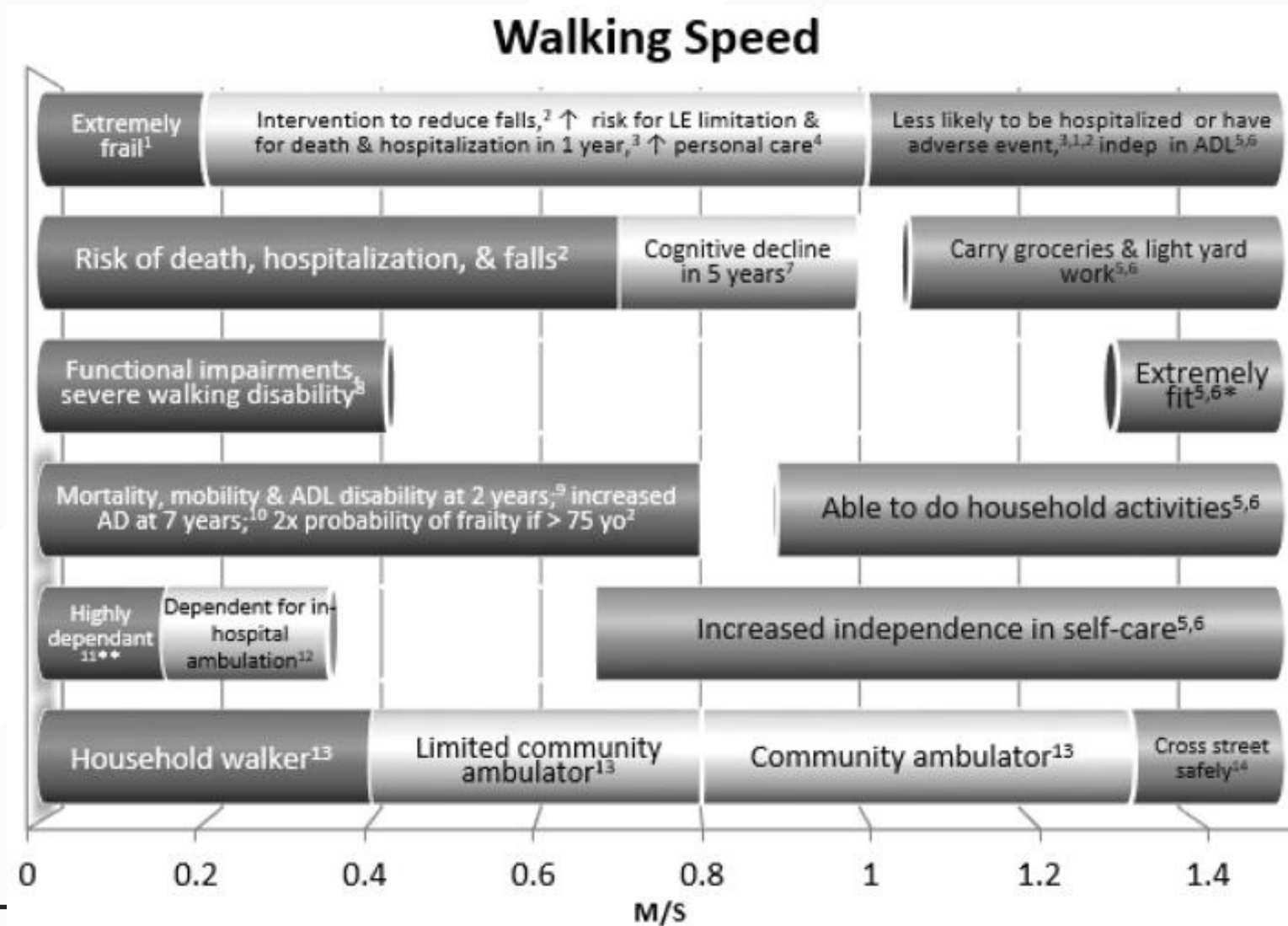
Gait speed is a valid, reliable, sensitive measurement for assessing and monitoring functional status and overall health in the older population.

[J Aging Phys Act. 2015 Apr; 23\(2\): 314–322.](#)

Gait is predictive of:

- Response to rehabilitation
 - Functional dependence
 - Frailty
 - Mobility disability
 - Cognitive decline
 - Falls
 - Institutionalization
 - Hospitalization
 - Cardiovascular events
-

Gait as the (new) Fifth Vital



What programs do you have to maintain and improve mobility?

JAMA | **Original Investigation**

Comparisons of Interventions for Preventing Falls in Older Adults A Systematic Review and Meta-analysis

Andrea C. Tricco, PhD; Sonia M. Thomas, MSc; Areti Angeliki Veroniki, PhD; Jemila S. Hamid, PhD; Elise Cogo, ND; Lisa Striffler, MSc; Paul A. Khan, PhD; Reid Robson, MSc; Kathryn M. Sibley, PhD; Heather MacDonald, MSc; John J. Riva, DC; Kednapa Thavorn, PhD; Charlotte Wilson, MSc; Jayna Holroyd-Leduc, MD; Gillian D. Kerr, MD; Fabio Feldman, PhD; Sumit R. Majumdar, MD; Susan B. Jaglal, PhD; Wing Hui, MSc; Sharon E. Straus, MD, MSc

IMPORTANCE Falls result in substantial burden for patients and health care systems, and given the aging of the population worldwide, the incidence of falls continues to rise.

OBJECTIVE To assess the potential effectiveness of interventions for preventing falls.

DATA SOURCES MEDLINE, Embase, Cochrane Central Register of Controlled Trials, and Ageline databases from inception until April 2017. Reference lists of included studies were scanned.

STUDY SELECTION Randomized clinical trials (RCTs) of fall-prevention interventions for participants aged 65 years and older.

DATA EXTRACTION AND SYNTHESIS Pairs of reviewers independently screened the studies, abstracted data, and appraised risk of bias. Pairwise meta-analysis and network meta-analysis were conducted.

MAIN OUTCOMES AND MEASURES Injurious falls and fall-related hospitalizations.

← [Editorial page 1659](#)

+ [Supplemental content](#)

+ [CME Quiz at
jamanetwork.com/learning
and CME Questions page 1706](#)

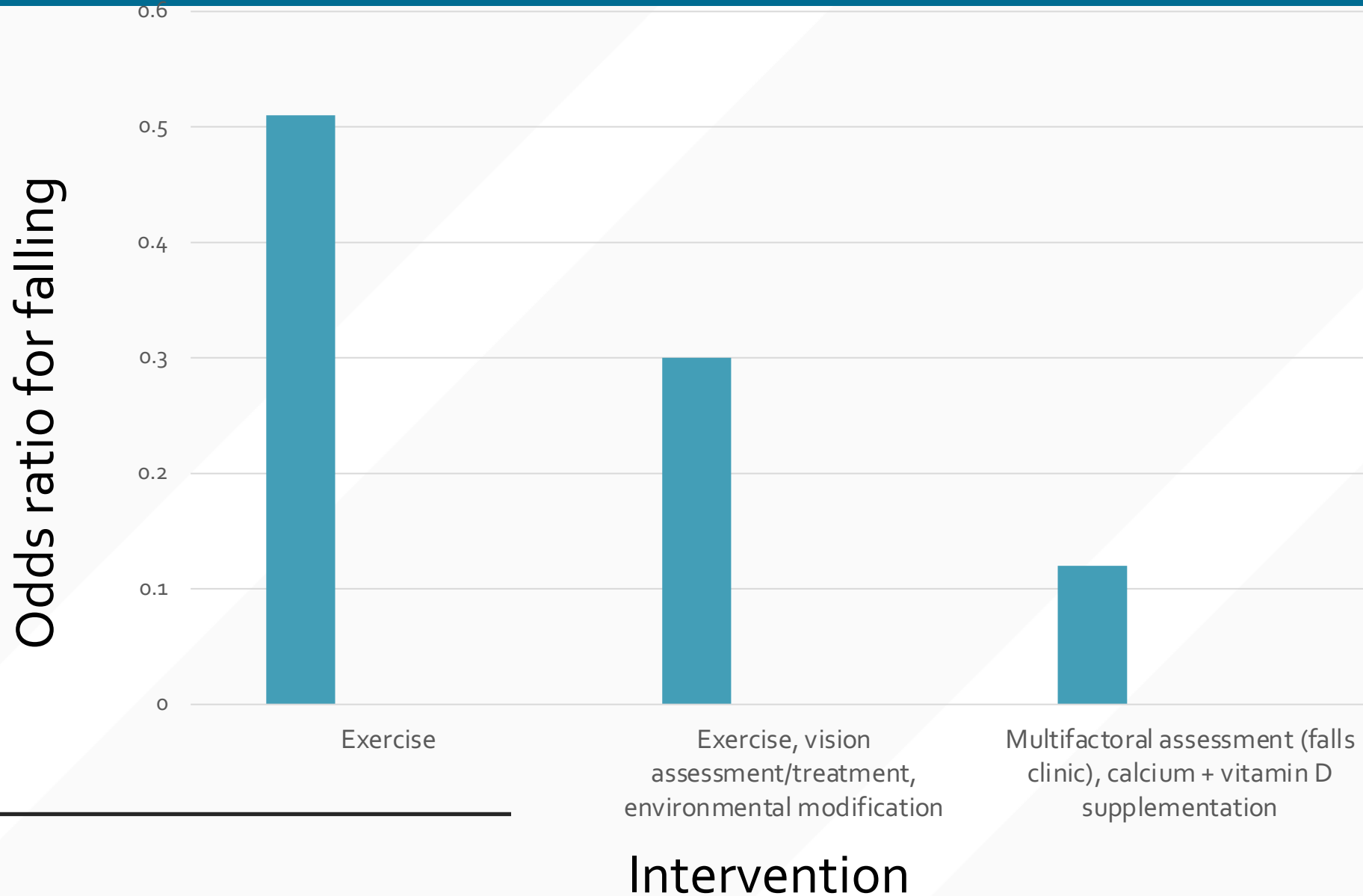
Table 4. Subgroup Analyses of Network Meta-analysis for Injurious Falls Outcome

Comparison by Subgroup	Studies, No.	Patients, No.	Proportion With Event (95% CI)		Odds Ratio (95% CI)	Absolute Risk Difference (95% CI) ^a
			Intervention	Control		
Exercise vs Usual Care						
Overall analysis					0.51 (0.33 to 0.79)	
Participants <75% women	37	20 354	0.36 (0.16 to 0.59)	0.41 (0.29 to 0.53)	0.49 (0.31 to 0.78)	-0.13 (-0.22 to -0.05)
Study duration ≤ 12 mo	44	32 890	0.30 (0.13 to 0.52)	0.33 (0.22 to 0.44)	0.48 (0.29 to 0.80)	-0.13 (-0.22 to -0.05)
Age <80 y of age	32	24 869	0.25 (0.08 to 0.48)	0.35 (0.19 to 0.53)	0.44 (0.26 to 0.75)	-0.14 (-0.23 to -0.05)
Mixed history of falling ^b	40	37 010	0.36 (0.16 to 0.59)	0.37 (0.25 to 0.49)	0.49 (0.30 to 0.82)	-0.14 (-0.23 to -0.04)
History of falling only ^c	11	3830	0.16 (0.07 to 0.27)	0.24 (0.07 to 0.47)	0.90 (0.24 to 3.30)	-0.05 (-0.17 to 0.27)
Low risk of contamination bias	24	26 969	0.40 (0.00 to 0.96)	0.26 (0.15 to 0.37)	0.59 (0.29 to 1.18)	-0.08 (-0.17 to 0.02)
Combined Exercise and Vision Assessment and Treatment vs Usual Care						
Overall analysis					0.17 (0.07 to 0.38)	
Participants <75% women	37	20 354	0.51 (0.42 to 0.59)	0.41 (0.29 to 0.53)	0.16 (0.07 to 0.39)	-0.38 (-0.55 to -0.21)
Study duration ≤ 12 mo	44	32 890	NA	0.33 (0.22 to 0.44)	NA	
Age <80 y of age	32	24 869	0.51 (0.42 to 0.59)	0.35 (0.19 to 0.53)	0.17 (0.07 to 0.43)	-0.35 (-0.52 to -0.19)
Mixed history of falling ^b	40	37 010	0.51 (0.42 to 0.59)	0.37 (0.25 to 0.49)	0.16 (0.06 to 0.42)	-0.38 (-0.57 to -0.20)
History of falling only ^c	11	3830	NA	0.24 (0.07 to 0.47)	NA	
Low risk of contamination bias	24	26 969	NA	0.26 (0.15 to 0.37)	NA	
Combined Exercise, Vision Assessment and Treatment, and Environmental Assessment and Modification vs Usual Care						
Overall analysis					0.30 (0.13 to 0.70)	
Participants <75% women	37	20 354	0.65 (0.57 to 0.73)	0.41 (0.29 to 0.53)	0.30 (0.12 to 0.71)	-0.24 (-0.40 to -0.07)
Study duration ≤ 12 mo	44	32 890	NA	0.33 (0.22 to 0.44)	NA	
Age <80 y of age	32	24 869	0.65 (0.57 to 0.73)	0.35 (0.19 to 0.53)	0.31 (0.13 to 0.78)	-0.21 (-0.38 to -0.04)
Mixed history of falling ^b	40	37 010	0.65 (0.57 to 0.73)	0.37 (0.25 to 0.49)	0.30 (0.11 to 0.78)	-0.24 (-0.43 to -0.05)
History of falling only ^c	11	3830	NA	0.24 (0.07 to 0.47)	NA	
Low risk of contamination bias	24	26 969	NA	0.26 (0.15 to 0.37)	NA	
Combined Clinic-Level Quality Improvement Strategies, Multifactorial Assessment and Treatment, Calcium Supplementation, and Vitamin D Supplementation vs Usual Care						
Overall analysis					0.12 (0.03 to 0.55)	
Participants <75% women	37	20 354	0.03 (0.00 to 0.07)	0.41 (0.29 to 0.53)	0.12 (0.03 to 0.56)	-0.17 (-0.34 to -0.01)
Study duration ≤ 12 mo	44	32 890	0.03 (0.00 to 0.07)	0.33 (0.22 to 0.44)	0.12 (0.03 to 0.54)	-0.17 (-0.33 to 0.00)
Age <80 y of age	32	24 869	NA	0.349 (0.191 to 0.527)	NA	
Mixed history of falling ^b	40	37 010	NA	0.37 (0.25 to 0.49)	NA	
History of falling only ^c	11	3830	0.03 (0.00 to 0.07)	0.24 (0.07 to 0.47)	0.12 (0.04 to 0.44)	-0.17 (-0.25 to -0.08)
Low risk of contamination bias	24	26 969	NA	0.26 (0.15 to 0.37)	NA	

Abbreviations: NA, not applicable.

^a Odds ratios derived from each network meta-analysis were transformed to risk differences using established methods.³⁴^b Studies that included participants regardless of whether they had fallen in the past or not.^c Studies that only included participants who had fallen in the past.

Exercise reduces falls!



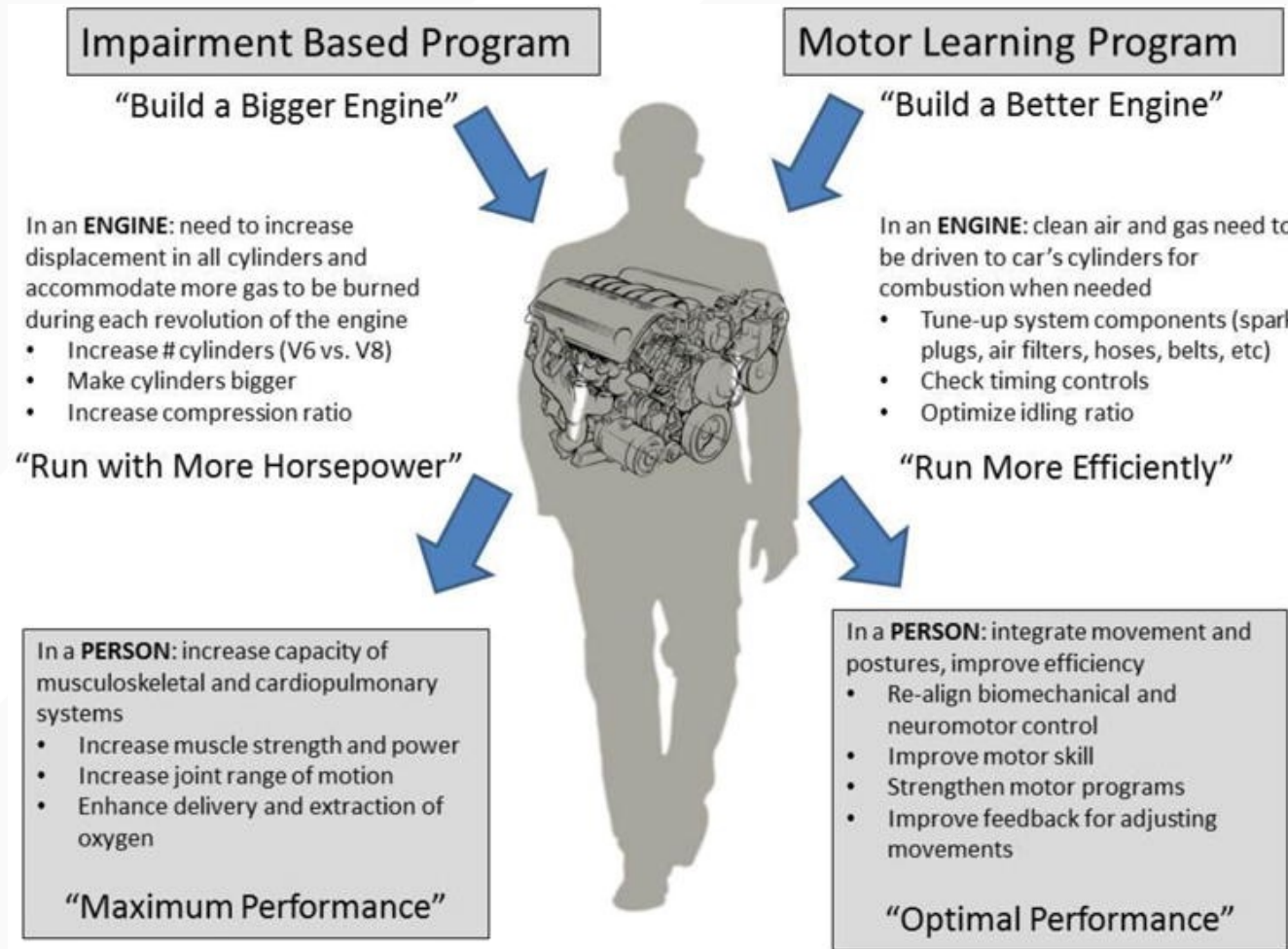
Brief Word on Vitamin D

Recommendation Summary

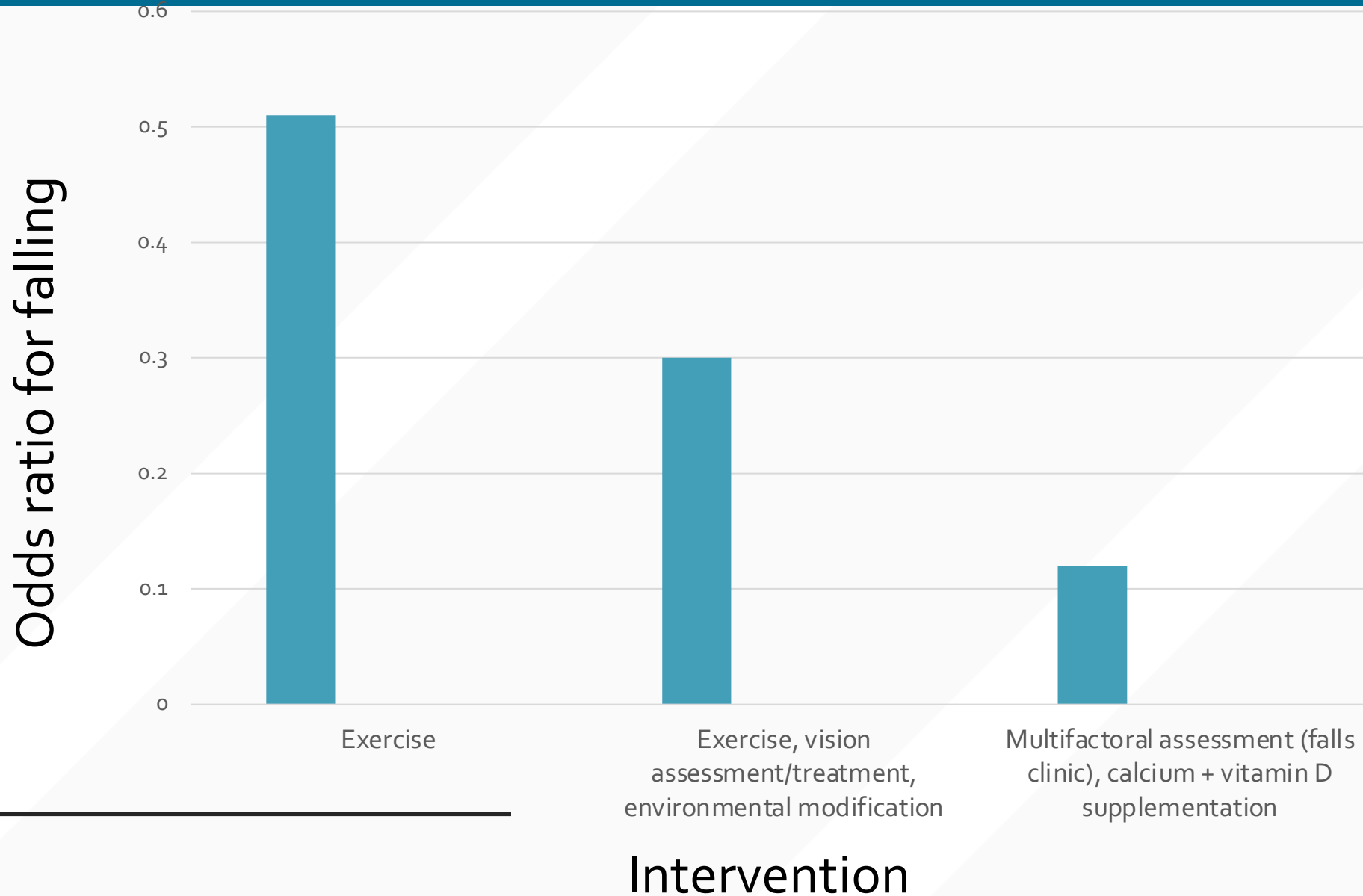
Population	Recommendation	Grade
Asymptomatic, community-dwelling, nonpregnant adults	<p>The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for vitamin D deficiency in asymptomatic adults.</p> <p>See the Practice Considerations section for additional information regarding the I statement.</p>	I

- Data around Vitamin D supplementation is MIXED!!
 - Consider 800 units daily for those at higher risk:
 - Low sun exposure
 - History of malabsorption
 - Obesity
 - Slow gait speed (<0.8 m/second)
 - Difficulties rising from a chair
 - Slow Timed Up and Go Test
-

Interventions to Improve Mobility



Exercise reduces falls!



Interventions to Improve Mobility

Impairment-based Intervention: Build a “Bigger Engine”

Component	Purpose	Sample exercise
Resistance exercise	Improve strength and power of weak lower extremity muscles used in walking.	Repeated chair stand
Stretching	Increase joint range of motion to attain specific postures of the limb during walking	Stretching of the dorsi-flexors
Aerobic conditioning	Enhance the delivery and extraction of oxygen to the muscles used in walking	Cycling on a stationary bike
Progressive ambulation training	Practice components of walking to facilitate ability to recognize incorrect actions so that they can be consciously corrected	Repeated practice of push-off or weight shifting of the center of mass

Task Oriented Motor Learning: Build a “Better Engine”

Component	Purpose	Sample exercise
Defined movement goal	Limits degrees of freedom and reduces conscious attention	Stepping patterns such as stepping forward and across. Walking to set speed using music or metronome
Movement to gain knowledge of muscles and postures	Facilitate smooth switching between agonists and antagonist muscle groups during gait	Stepping backward and across prior to stepping forward.
Practice to correct errors in movement, develop and adjust motor plans	Accurate practice to facilitate changes or skill acquisition	Treadmill walking
Challenge to select optimal motor plan	Challenges accuracy and amplitude to facilitate motor skill acquisition. Sets criterion for performance.	Varying selection of motor plan during walking such as changing the direction of walking an oval path or spiral

SMART Goals: Specific, Measurable, Achievable, Relevant, Time Bound

e.g. walk on the treadmill for 30 minutes M/W/F between now and the next office visit

Resources for Mobility: UpToDate

Sample FITT prescription for sedentary beginning exerciser

Frequency	Three days per week
Intensity	Moderate*
Time	20 to 30 minutes
Type	Brisk walking

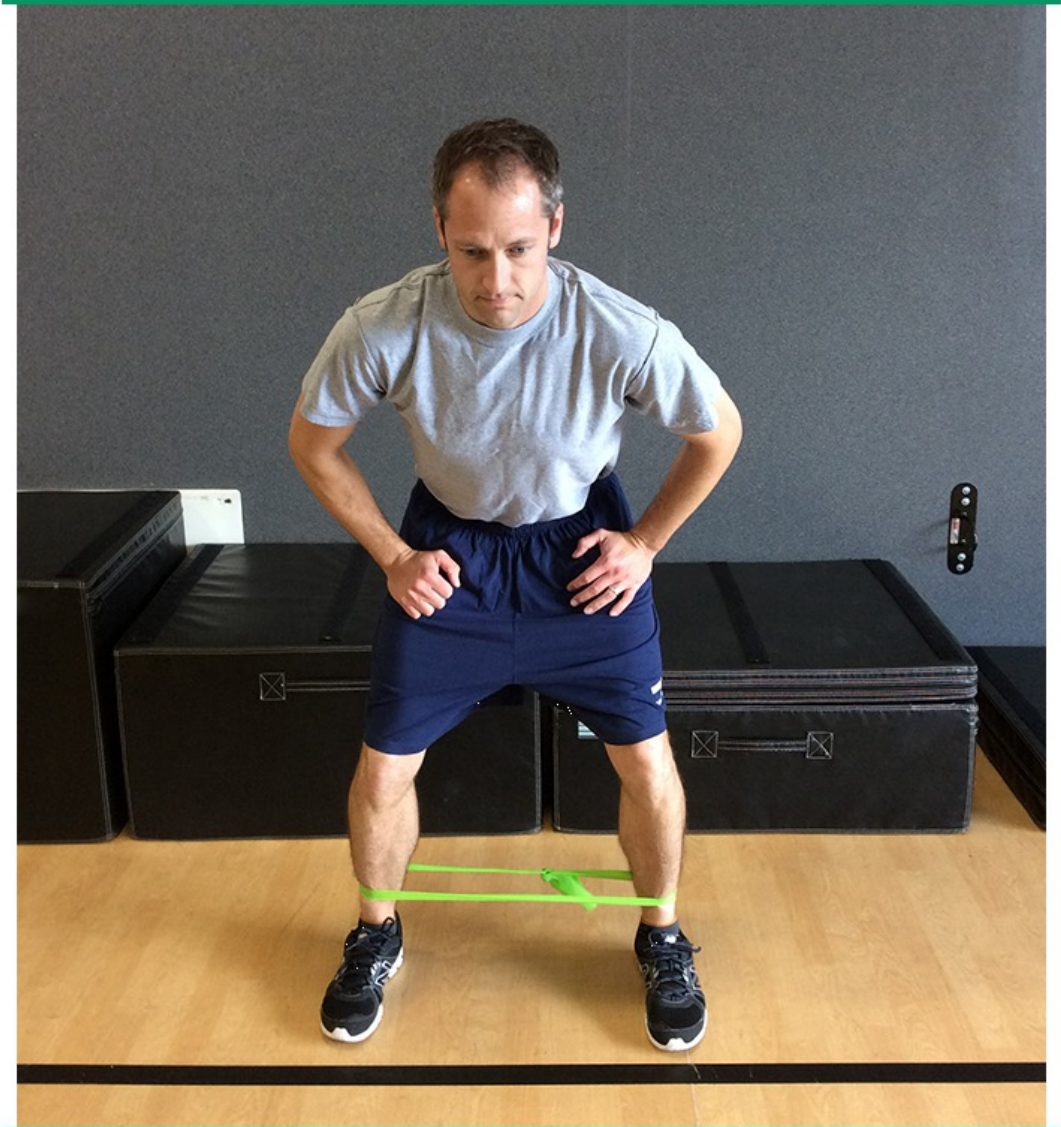
FITT: Frequency, intensity, time, and type of exercise.

* During moderate intensity exercise, a person is too winded to sing but is not so winded they cannot talk.

Graphic 117935 Version 1.0

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Square steps exercise with resistance band



The exercise shown is used in exercise programs for a range of athletes. With an elastic band encircling both knees, stand in a half-squat position with toes pointing forward and a neutral spine. Take steps to the left, forward, right, and backward, making a square, while maintaining continuous tension in the band.

Courtesy of Mark Lydecker, MPT, OCS, ATC.

Resources for Mobility: National Institute on Aging



Physical activity is an important part of healthy aging. Check out these articles, which were previously housed on the **Go4Life** exercise and physical activity website, to learn the latest on how exercise and physical activity can help you stay healthy as you age. Find tips on how to fit exercise into your daily life safely and get motivated to get moving!



[4 Types of Exercise](#)

Learn about endurance, strength, balance, and flexibility.



[How to Get Started with Exercise](#)

Being physically active is one of the best things you can do for your health. Get



[Real-Life Benefits of Exercise](#)

Staying active can help your physical and emotional health and mobility.

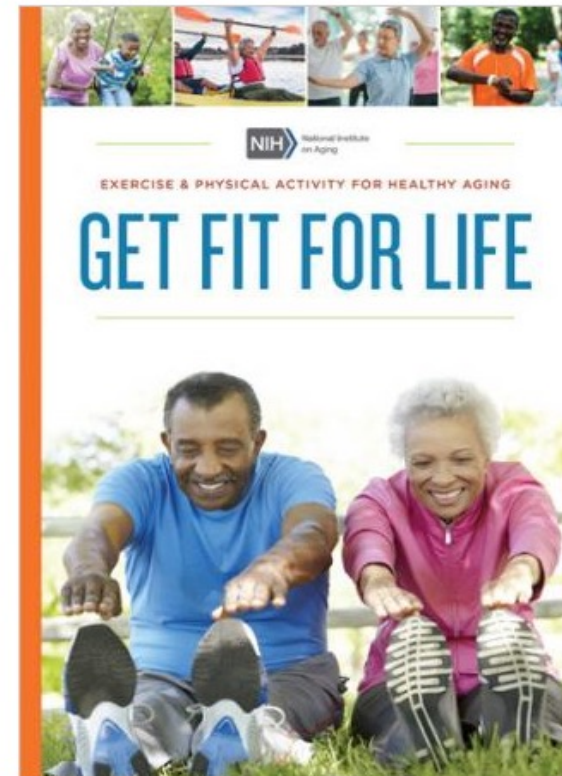
Order Free Publications

EXERCISE


Get Fit For Life: Exercise & Physical Activity for Healthy Aging


This guide can help you learn about the many types and benefits of exercise and physical activity, find out how to get started, reduce your health risks by doing activities safely, and celebrate your progress.





Interventions to Improve Mobility: Aging and Independent Services

SanDiegoCounty.gov Home


 Health & Human Services Agency

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AGING & INDEPENDENCE SERVICES  

CALL CENTER: 800-339-4661

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OLDER ADULTS

PERSONS WITH DISABILITIES

FAMILIES/CAREGIVERS

COMMUNITY PARTNERS

Older Adults

Information & Assistance

Aging & Independence Services (AIS) Call Center - (800) 339-4661

The AIS call center is a gateway for up-to-date information about resources and assistance for older adults, people with disabilities, and their family members. Answering the phones are specialists trained and authorized to assess your needs and help you find the right services.

I am looking for information on...



Resources for Mobility: Aging and Independent Services

September is Fall Prevention Awareness Month!

Join the San Diego Fall Prevention Task Force, County of San Diego, and Scripps Health in observing **Fall Prevention Awareness Week on September 20-24, 2021**. This is a nationwide effort to raise awareness that falls are preventable. **Advanced registration is required and Zoom workshops are limited to 100 participants.**

Monday, September 20th

9:00 am: Falls Prevention – A Proactive Approach in Pandemic Times ([Register HERE](#))

Dr. Melissa Wolinski, D.O., MPH – Internal Medicine | Scripps Health

Description: A recent national poll found that one in three older adults reported being afraid of falling and among these older adults, 23% became more fearful of falling during the pandemic. During this workshop, you will learn from an internal medicine doctor about simple steps you can take to reduce your risk and alleviate your fear of falling.

10:00 am: Feeling Fit Club Sample Class ([Register HERE](#))

Gretchen Vurbeff, MA, MS, Exercise Physiologist | Aging & Independence Services

Description: Feeling Fit Club is a functional fitness program designed for older adults of all abilities. Classes include 4 core components: strength (upper body, lower body, and core), balance, aerobic endurance, and flexibility. During this sample class, you will have the opportunity to participate in a shortened version of the program and learn about opportunities to get involved.

2:00 pm: Head to Toe Workout ([Register HERE](#))

Danica Edelbrock, MS, Exercise Physiologist | Scripps Health

Description: Move every muscle during this fun exercise class as we mindfully challenge our coordination, balance, strength, and flexibility. As an optional challenge, have a pair of hand weights or soup cans available!

Wednesday, September 22nd

9:00 am: The Impact of Nutrition on Preventing Falls ([Register HERE](#))

Pey-Lih Littler, M.Sc., RDN (Registered Dietitian Nutritionist) | San Diego Community College District

Description: Nutrition status is a key predictor for the likelihood of falling and the gravity of injuries. During this session, we will discuss a variety of foods and beverages from the core food groups that are important towards prevention of nutrient depletion and associated risks of falling.

10:00 am: Tai Chi Moving for Better Balance Sample Class ([Register HERE](#))

Resources for Mobility: PBS

The screenshot shows the PBS website interface. At the top, there are navigation links for Shows, Video, TV Schedules, Shop, and Donate. Below this is a banner for 'Call to Action' with a yellow pedestrian sign icon. A sidebar on the left contains a 'Take a Quiz!' section with a 'Neighborhood Walkability Quiz' and a 'What's Inside' section listing various articles. The main content area features an article titled 'Quick Fit 15-Minute Exercise Program' by Rick Bradley. The article includes a list of four key components: 1. Aerobic activity: 10 minutes, 2. Abdominal exercise: 50 Half bent-knee sit-ups, 1 minute, 3. Strength moves: 3 minutes, and 4. Beginner instructions for using dumbbells.

aw
america's walking

Call to Action

- The Series
- TV Listings
- Resources & Links
- Tell Us Your Story
- Feedback
- FAQ

▫ Home ▫ Personal Health & Fitness ▫ Fuel for the Road ▫ Gear to Go ▫ Call to Action ▫ Travel & Adventure

Take a Quiz!
▸ Neighborhood Walkability Quiz

What's Inside
▸ NEW! Quick Fit 15-Minute Exercise Program
▸ Ways to Make Your Community More Walkable
▸ Volunteering at America's National Parks
▸ Getting Them Walking at Work

Email this Print this

Quick Fit 15-Minute Exercise Program

Rick Bradley has developed an innovative 15-minute corporate fitness program called "Quick Fit." You don't even have to change into workout clothes—just come in, do your thing, and get back to your busy day. Here are the four key components of Rick's "Quick Fit" routine:

- 1. Aerobic activity: 10 minutes.**
Bradley's goal is for you to do 10 minutes of continuous aerobic activity, but what you do is up to you. He finds most people like to walk, often on the treadmill—it's easy, requires no special training, and it's a comfortable, familiar activity. But others hop on a stationary bike, stair climber, or elliptical machine, or choose to walk outside or in the hallways. He wants you to start comfortably, but during the activity move up to a brisk walking pace or effort level—enough to cause noticeable breathing, but still allow you to talk.
- 2. Abdominal exercise: 50 Half bent-knee sit-ups, 1 minute.** Lay on an exercise mat or the floor with your back flat, your knees bent to about a right angle, and your feet flat on the floor. Pull your chin to your chest and keep it there, and extend your arms and hands, with your fingers pointed toward the tops of your knees. Now slowly lift the shoulders off the mat four to six inches, bringing your hands to your knees, and come back down. That's one; repeat 49 more times.
- 3. Strength moves: 3 minutes.**
Beginner: Use dumbbells to do these three moves, selecting the weight so that 10 to 15 repetitions of each exercise is fatiguing.
 - a. Chest press.** Lay with your back flat on the floor and arms extended out to your sides, bent at a right angle at the elbow, forearms pointed toward the ceiling, hands holding dumbbells. Press the weights up toward the ceiling, fully extending arms, then lower. Do 10 to 15.
 - b. Curls.** Stand with feet shoulder-width apart, arms straight down at your sides, palms facing the body, holding dumbbells. Bend arms at the elbow, keeping upper arm still but raising the weight to the front of the shoulder. While lifting the weight, rotate to the palm of your hand faces up during the curl; slowly lower weight. Do 10 to 15.

The screenshot shows the Sit and Be Fit website. The top navigation bar includes links for HOME, SHOP, WATCH, DONATE, ABOUT, RESOURCES, LIBRARY, and CONTACT. The main content area features a large image of a woman sitting in a blue chair with a pink ball. The text reads: 'BUILD A STRONG BODY. AGE WITH INDEPENDENCE. Sit and Be Fit is here to help you improve your life through functional fitness. Enjoy the freedom that comes with good health.' Below the image is a blue button labeled 'HEALTH TIPS'. At the bottom of the page, there is a dark blue banner with the text 'Seniors Chair Exercise Programs'.

Sit and Be Fit™

HOME SHOP WATCH DONATE ABOUT RESOURCES LIBRARY CONTACT

BUILD A STRONG BODY. AGE WITH INDEPENDENCE.

Sit and Be Fit is here to help you improve your life through functional fitness. Enjoy the freedom that comes with good health.

HEALTH TIPS

Seniors Chair Exercise Programs

The screenshot shows the ESSEINTRICS website. The top navigation bar includes links for THE AGES, OUR TV SHOWS, PROFILES, ABOUT US, CERTIFICATION, LIVE EVENTS, SHOP, STREAMING, and ENGLISH. The main content area features a large image of a woman in a pink shirt. The text reads: 'CLASSICAL STRETCH® NEW! SEASON 13 NOW AVAILABLE ON STREAMING'. Below the image are two yellow buttons: 'WATCH SEASON 13 TRAILER' and 'STREAM SEASON 13'.

ESSEINTRICS®

THE AGES | OUR TV SHOWS | PROFILES | ABOUT US | CERTIFICATION | LIVE EVENTS | SHOP | STREAMING | ENGLISH

CLASSICAL STRETCH®

NEW! SEASON 13 NOW AVAILABLE ON STREAMING

WATCH SEASON 13 TRAILER STREAM SEASON 13

Resources for Mobility: Silver Sneakers

[SilverSneakers Medicare Health Plan Providers | SilverSneakers](#)



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PARTICIPATING HEALTH PLANS

[SELECT A STATE](#) →

Select State ▾

Resources for Mobility: CDC MyMobility Plan

https://www.cdc.gov/motorvehiclesafety/pdf/older_adult_drivers/CDC-AdultMobilityTool-g.27.pdf



What can you do to stay independent?

Many people make financial plans for retirement, but not everyone plans for other changes that may come with age. This includes changes in your mobility—your ability to get around.

It's not easy to talk about, but as we get older, physical changes can make it harder to get around and do things we want or need to do—like driving, shopping, or doing household chores.

There may be a time when you still need to get around, but can no longer drive.

You might not have mobility problems now, but you could in the future. You may even know others who already do—perhaps a parent, relative, friend, or neighbor. While it may not be possible to prevent all of these changes, there are actions you and your loved ones can take today, and as you age, to help keep you safe and independent tomorrow.

MySelf
A plan to stay independent

MyHome
A plan to stay safe at home

MyNeighborhood
A plan to stay mobile in my community

**Make a plan today.
Stay independent tomorrow.**



MySelf : A plan to stay independent

Staying healthy and managing chronic conditions help maintain your mobility.

To start building your plan, complete the checklist below

- Get a physical checkup each year.**
Some health issues may increase your risk of falling (such as leg weakness and balance problems).
Last Exam Date: _____
Next Exam Date: _____
- Get a medical eye exam each year.**
Eye problems can increase your risk of falling or being in a car crash.
Last Exam Date: _____
Next Exam Date: _____

- Review all your medicines with a doctor or pharmacist.**
Certain medicines can have side effects that can change your ability to drive, walk, or get around safely.
To learn more, go to:
<https://go.usa.gov/xPADs>

MyMobility Tip

Good eyesight is about more than 20/20 vision. For example, you need to see well in the dark to drive safely at night.

Get a medical eye exam each year and address any issues.

- Follow a regular activity program to increase your strength and balance.**
Strength and balance activities, done at least 3 times a week, can reduce your risk of falling. Other activities, like walking, are good for you, but don't help prevent falls. Visit the National Institute on Aging's website for suggestions:
www.go4life.nia.nih.gov/exercises

Strength Activity		Balance Activity	
Exercise	Start Date	Exercise	Start Date
Chair stand	Next Monday	Tai Chi	Next Monday

MyNeighborhood : A plan to stay mobile in my community

Finish your plan by filling out the table below.

Think of all the places you go and how you get there.

Then, consider how you would get to these same places if you couldn't use your current way.

- Find transportation options in your ZIP code:**
 - Rides in Sight
1-855-607-4337
www.ridesinsight.org

Ride share services can help keep you connected to family and friends. Staying social helps maintain quality of life as you age.

Where do I go now? (Such as doctor, grocery store, or physical activity class)	How do I get there now? (Such as drive, get a ride, or use public transportation)	How will I get there in the future? (Such as bus, rideshare, or ride with a friend)
Meet friends for lunch	Drive myself	Get a ride from a friend

- Consider a driver refresher course.**
Some insurers give a discount on your car insurance for taking a course:
 - AARP (888) 687-2277 or www.aarp.org
 - AAA (800) 222-4357 or www.aaa.com

MyMobility Tip

Practice safe behaviors, such as always wearing a seatbelt, as a driver or a passenger.

For more information visit:
www.cdc.gov/motorvehiclesafety/older_adult_drivers/mymobility

A Brief Word About Inpatient Mobility Interventions


- Ineffective
 - Alarms, alerts, fall risk signs, slippers, scheduled toileting alone
 - Effective
 - Physical therapy, supervised exercises, frequent mobility
 - Remove tethering devices: i.v.'s; telemetry, catheters
 - Minimize psychoactive medications
-

Case Study (CDC STEADI initiative):




Mr. Ying is an 84-year-old man who lives in an apartment that adjoins his son's house. Mr. Ying is accompanied to this clinic visit by his son who assists with the history. Although previously outgoing and social, Mr. Ying recently has been limiting his outside activities.

Today's Visit

- For the past year, dizzy when standing after sitting or lying down, often needs to “catch himself” on furniture or walls
 - No recent changes to medications or routine
 - No syncope, dyspnea, vertigo, or pain accompanying his dizziness
 - Also feels unsteady on his feet when walking, independent of his dizziness
 - Requires help with bathing
 - He has started using a cane, but doesn't like to use it inside.
 - No recent falls, but an elderly neighbor recently fell and is now in a nursing home, Mr. Ying is very fearful about falling and becoming a burden to his family.
 - Has spinal stenosis, but pain is controlled; does have lower back stiffness for several hours in the morning, no weakness
- 


Past Medical History

- Hypertension
 - L3-5 spinal stenosis and chronic low back pain and leg numbness/ paresthesias
 - Depression
 - Benign prostatic hypertrophy, with 3-4x/night nocturia and occasional incontinence
 - Hyperlipidemia
 - Gastroesophageal reflux disease
 - B12 deficiency
 - Allergic rhinitis
 - Glaucoma
 - Nummular eczema
- 

Medications

MEDICATION	DOSE	TIMING
Valsartan	80 mg	daily
Citalopram	40 mg	daily
Tamsulosin	0.8 mg	at bedtime
Finasteride	5 mg	daily
Atorvastatin	40 mg	at bedtime
Omeprazole	20 mg	daily
Cyanocobalamin	1000 mcg	daily
Cetirizine	10 mg	daily
Fluticasone	50 mcg/spray, 2 sprays, each nostril	daily
Gabapentin	600 mg	3x daily
Acetaminophen	500 mg-1000 mg	up to 4x daily as needed for pain
Brimonidine tartate	0.15%; 1 drop in both eyes	3x daily
Dorzolamide	2%/timolol 0.5%, 1 drop in both eyes	2x daily
Latanoprost	0.005%, 1 drop, both eyes	at bedtime
Trazodone	50 mg	at bedtime
Calcium carbonate chewable	500 mg chewable	up to 3x daily as needed

Review of Systems

- Positive for fatigue
 - Poor vision in his left eye
 - Constipation
 - Nocturia 3-4 times a night
 - Frequent urinary incontinence
 - Low back stiffness
 - Difficulty concentrating
 - Depression
 - Dry skin
 - Hoarseness
 - Nasal congestion
- 


Physical Exam

- Vitals - Supine – 135/76, 69; Sitting – 112/75, 76; Standing – 116/76, 75. BMI 19.
- Gen - This is a thin, alert, older man in no apparent distress, pleasant and cooperative, but with a notably flat affect.
- Head - Normocephalic/atraumatic.
- ENMT - Acuity with corrective lenses: 20/30 R, 20/70 L.
- CV - Regular rate and rhythm normal S₁/S₂ without murmurs, rubs, or gallops.
- Respiratory - Clear to auscultation bilaterally.
- GI - Bowel sounds decreased in LLQ, firm, non-tender, mildly distended.
- Musculoskeletal - UE strength 5/5 bilaterally; LE strength 4+/5 bilateral hip flexors/abductors and bilateral knee flexors/extensors, remainder LE normal. No knee joint laxity. Foot exam shows no calluses, ulcerations, or deformities.
- Neurology - Cognitive screen: recalled 2 out of 3 items.
- Whisper test for hearing - Intact.
- Tone/abnormal movements - Tone is mildly increased in both legs; normal tone in both arms. Sensation is intact to light touch and pain throughout. Reflexes are normal and symmetric.
- Psych - PHQ-2 = 4/6.

ASSESSMENT

- Timed Up and Go:
 - 15 seconds using his cane
 - Gait: slow with shortened stride and essentially no arm swing. No tremor, mild bradykinesia
- 30-Second Chair Stand:
 - 9 stands in 30 seconds
 - Able to rise from the chair without using his arms to push himself up


Mobility Risk Factors

- Gait, strength, and balance impairments
 - Fear of falling
 - + orthostatic blood pressure
 - Difficulty concentrating
 - Poor vision
 - Nocturia >2 times a night
 - Depression
- 

Safe Mobility Improvement Recommendations

- Gait, strength, and balance impairments
 - Referral to PT given mobility screening results
 - Consider starting 800 IU vitamin D daily
 - Fear of falling
 - Referral to OT for home safety eval
 - SMART goals (can be based on Home Exercise Program recommended by PT)
 - + orthostatic blood pressure
 - Consider adjusting valsartan, tamsulosin, and finasteride
 - Council about self-management of orthostatic hypotension (drink 6-8 glasses of water a day, do ankle pumps and hand clenches for a minute before standing, do not walk if dizzy)
 - Difficulty concentrating
 - Consider adjusting citalopram, gabapentin, cetirizine, and trazodone
 - Poor vision
 - Referral to eye specialist for eye exam, glaucoma assessment, and an updated prescription
 - Nocturia >2 times a night
 - Consider bedside urinal, safe nighttime lighting from bed to bathroom
 - Depression
 - Consider medication adjustment, Psych referral
-

Empower the Patient!

- Provide the CDC fall prevention brochures, What YOU Can Do to Prevent Falls and Check for Safety.
 - Refer to CDC MyMobility Plan
 - Homework: 3 SMART goals to improve engine function
 - Encourage identification of an accountability partner (son? friend?)
- 

Summary

Shift the narrative from fall prevention to ***empowering safe mobility***

EVERY senior is at risk of compromised mobility and the consequences are ***significant***

Consider ways of incorporating mobility assessment into routine clinical practice

Refer to PT and community resources with abandon!

THANK YOU!

Reminder: Please sign in and complete an evaluation to receive CME credit for your participation using the link or QR code below:

https://ucsd.co1.qualtrics.com/jfe/form/SV_0r13Cr4dk1FDYqy



Questions? Contact us at:

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