Age-Friendly Healthcare in the New Normal
Mobility: Keeping Aging FUN

Montana Geriatric Education Center
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Objectives

1) Describe the benefits of physical activity promotion and fall risk screening for the older adult to help maintain mobility

2) Identify ways to assess mobility in the older adult

3) Identify ways to act on mobility findings to design and provide appropriate care for older adults

AIM of Age-Friendly Health System Initiative

1. Follow an essential set of evidence-based practices
2. Cause no harm
3. Align with What Matters to the older adult and their family caregivers

Mobility: being able to move

Two Key Drivers of Age-Friendly Health Systems

Institute for Healthcare Improvement
Aging and Mobility: The Slippery Slope of Aging

Those who think they have no time for bodily exercise will sooner or later have to find time for illness”
- Edward Stanley


2 Cause No Harm

The Physical Stress Theory

Consequences of Aging
- Loss of physiologic reserve
- Loss of muscle
- Loss of bone mass
- Stiffness (collagen)
- Slower reaction time
- Vision changes

Consequences of Immobility
- Accelerated aging
- Risk of injury and falls
- Mobility-disability
- Younger age for onset of physical frailty
- Fewer years of high-quality life
- Increased mortality


1 Follow an Essential Set of Evidence-Based Practices

- People who are physically active have a 33% lower risk of all-cause mortality compared to those physically inactive
- Exercise has shown to prevent, delay or manage over 30 chronic conditions
- 80% of US adults and adolescents are insufficiently active
- Physically active middle-aged or older adults have a lower risk of functional limitations than people who are inactive

National Center for Health Statistics

Percentage of Adults Who Met Physical Activity Guidelines in 2018

CDC NCHS 2018

Piercy 2018

3 Align with What Matters to the older adult and their family caregivers

Selection
- Focus on What Matters Most

Optimization
- Maximize functional gains for optimal mobility

Compensation
- Minimize decline and loss of mobility

Successful Aging Model

Baltzer 1990
Keeping Aging FUN

- Check your bias
- Typical aging is not "normal" aging
- Older adults have the same PA recommendations & benefits

Ask & Assess
Make PAVS a routine part of the health history for all adults

Physical Activity Vital Sign

1. On average, how many days per week do you engage in moderate to strenuous exercise (like a brisk walk)?
2. On average, how many minutes do you engage in exercise at this level?
   Total minutes per week of physical activity (multiply #1 by #2)

   Incorporate the PAVS into your electronic health record and patient intake forms. Calculations may be programmed and the sedentary patient flagged for referral or counseling.

Mobility in Age-Friendly Care

Ask and Assess
Engage: What Matters Most?
Individualize: Collaborate
Build Self-Efficacy: Empower

Physical Activity
- Move more-Sit less
- 150 min/week of moderate-intensity aerobic activity or
- 75 min/week of vigorous intensity
- Muscle-strengthening activities 2x/week of moderate or greater intensity

Fall Prevention
- Multicomponent physical activity that includes progressive, challenging balance training
Build self-efficacy with positive messaging

- It is MY choice.
- PA is a privilege not a punishment.
- Feel better, function better, sleep better.
- Being active is a gift to yourself.
- Every minute counts.
- Permission to do any and all movement.
- Day is a treasure hunt to find opportunities to move.
- Snack mentality for PA.
- Can feel good while doing it.

Segar 2015

What Can Busy Providers Do to Encourage PA?

**1 Minute for Brief Advice:**

- Quickly congratulate patients who are getting 150 minutes or more of moderate or greater physical activity.
- Advise patients who are getting <150 minutes of the importance of physical activity, especially linking benefits to patient's concerns, problems, and diagnosis.

**0 Minutes:**

- Running late? Too many other concerns on the patient's list? Relax. Discuss physical activity at the next visit. Hopefully, office staff will have assessed exercise and provided resources.

What Can Busy Providers Do to Encourage PA?

**2 Minutes for Activity Rx:**

- Review key messages about the importance of physical activity.
- Offer a generic Exercise Prescription.
- Suggest useful resources (e.g. smart phone apps, wellness tele-coaching, community programs, chair exercise DVDs)

**5 Minutes for Brief PA Counseling:**

- Assess readiness for change re: exercise habits.
- Ask what the patient might want to do to be more active and barriers to prevent it – brainstorm on how to get around them.
- Explain how exercise can affect diseases they have (or are at risk for) and how they can go about incorporating activity into their life.

ACSM EIM

Exercise is Medicine: Rx for Health Series

~30 medical conditions (also in Spanish)
1. It is never too late to start
2. Supervised strength training is not a high-risk activity
3. Reduces the effects of chronic conditions
4. Improves balance and reduces risk of falling
5. Reduces lower back pain
6. Enhances mental well being raising self-esteem and self-confidence

Muscle-Strengthening Activities
Check your bias!

APTA's New Public Awareness Campaign Promotes Physical Activity

#Choose PT APTA website

Create a Physical Activity Network

<table>
<thead>
<tr>
<th>Places</th>
<th>Programs</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks and Trails</td>
<td>Area Agency on Aging</td>
<td>Exercise Professionals</td>
</tr>
<tr>
<td>Churches</td>
<td>YMCA</td>
<td>PT (GCS)</td>
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<tr>
<td>Fitness Centers</td>
<td>SilverSneakers</td>
<td>OT (BCG)</td>
</tr>
<tr>
<td>Community Centers</td>
<td>EBPs</td>
<td>Registered Dieticians (CSG)</td>
</tr>
<tr>
<td>Senior Centers</td>
<td>Web-based programs</td>
<td>Pharmacists (BCGP)</td>
</tr>
</tbody>
</table>
Physical activity is an effective means of slowing age-related deterioration in mobility. Individual risk factors for mobility decline should be assessed and addressed early. Preventative and rehabilitative interventions should be considered to optimize the opportunities for good mobility with age. Target risk by groups:
- Young people can slow aging declines by being active
- Middle-aged people can prevent future risk for mobility decline by increasing physiological reserve
- Older people who are recovering from an injury or disease should receive rehabilitation

Keep Aging FUN
Avoiding Harm through Prevention

Rantakokko 2013

Mobility Disability
- Mobility disability is the gap between an individual's physical ability and environmental challenges
- Mobility encompasses the person's physical ability to move as well as the ability to adapt to the environment
- Disability can range from preclinical (limitation only exists in highly challenging environments) to severe
- Loss of independent mobility is associated with higher rates of functional disability, nursing home placement and mortality among older adults

Life Space is a measure of mobility capturing an individual's typical movement in their environment.

Shrinking life space is a behavioral adaptation to declining physiological reserve and capacity.

During the past 4 weeks, have you been:
- to another room of the house?
- outside your household?
- beyond your yard?
- outside your neighborhood?
- outside your town?
**Mobility Disability**

- Mobility limitations are often the first sign of functional decline

- Self-report of modification of method of doing a task **in the absence of difficulty** is an independent predictor of risk of incident mobility disability

**Self-Report**
- Difficulty/modification walking ¼ mile
- Difficulty/modification climbing 10 steps
- Shrinking life space
- Falls

**Observation**
- Gait quality & speed
- Rise from chair without use of hands

**Functional Testing**
- Gait Speed
- Timed-Up & Go (TUG)
- Sit to Stand Tests
- Handgrip Strength

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**Follow an Essential Set of Evidence-Based Practices**

- 30% of adults over the age of 65 fall every year
- **Falling is not a normal part of aging**
- Falls are a leading cause of injury, morbidity and functional impairment
- Adults who suffer a fall-related injury are more likely to lose their ability to live independently (40%) and die within a year (20%).
- Implementation of fall risk screening, assessment, referral and multifactorial interventions are recommended and are effective to reduce the rate of falls.

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**Walking Speed as an Indicator of Mobility**


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**Fall Risk Assessment**

**STEADI Fall Risk Algorithm for Fall Risk Screening, Assessment and Intervention**

**SCREEN**

1. feels unsteady when standing or walking?
2. worries about falling?
3. has fallen in the past year?

**Stay Independent Tool**

**NCOA Falls Free Check-up**

**High Risk: Further Assessment**

- Evaluate gait, strength, balance
- Identify medications
- Home hazards
- Orthostatic blood pressure
- Visual acuity

**Low Risk: Prevention**

- Educate on fall prevention
- Refer to community exercise or fall prevention program

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**Low Risk: Prevention**

- Feet/footwear
- Vitamin D
- Comorbidities
**Multifactorial and Multidisciplinary Interventions**

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<th>ACT ON</th>
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<tbody>
<tr>
<td>Gait, strength or balance</td>
<td>Refer to physical therapy or evidence-based exercise or fall prevention program</td>
</tr>
<tr>
<td>Medications</td>
<td>Consult pharmacist, optimize medications</td>
</tr>
<tr>
<td>Home hazards</td>
<td>Refer to occupational therapy</td>
</tr>
<tr>
<td>Orthostatic hypotension</td>
<td>Hydrate, adjust medications</td>
</tr>
<tr>
<td>Vision</td>
<td>Refer to optometrist, adjust medications</td>
</tr>
<tr>
<td>Feet/footwear</td>
<td>Refer to podiatrist</td>
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<tr>
<td>Comorbidities</td>
<td>Optimize treatment, consider medications</td>
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**Assistive Devices**

- Mobility devices can be helpful for the older adult with balance or mobility limitation to improve confidence, independence, and higher levels of activity.
- Devices must be prescribed by a professional and instruction provided in the proper techniques: use of mobility devices is not without potential adverse consequences.
- Inappropriate prescribing, inadequate training in use of the device, or use of unprescribed devices increases risk of falls.

**MyMobility Plan**

*What can you do to stay independent?*

- Keep your home safe:
  - Fix broken floor and ceiling tiles.
  - Repair or replace loose rugs or slips.
  - Add handrails in the shower and tub. Use the non-slip pads in the tub.
  - Use a step stool, not a chair, to reach the counter.
  - Add a safety grab bar to the shower.
  - Clean your path.

- Be safe and well balanced:
  - Include weight training, balance, and flexibility exercises in your daily routine.
  - Use handrails in the shower, on stairways, and in stair wells.

- Be mobile in your community:
  - Use a medical care visit to assess your risk of falls and to make a plan to improve your mobility.
  - Make sure your home and community are accessible.

- MyMobility Tip: *Use the back of your hand to lower each step to the floor.*

- MyMobility Tip: *Use a can to help you straighten up.*

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<tr>
<td>Use a mobile phone to stay independent.</td>
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<tr>
<td>Elevator:</td>
<td>Elevator:</td>
</tr>
<tr>
<td>Use your phone to call for help.</td>
<td>Use your phone to call for help.</td>
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**Steadi Gait, Strength and Balance Assessment**

- **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 30 feet away, on the floor.

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

- **On the worst “Go,” begin timing.**
- **Stop timing after patient sits back down.**
- **Record time.**

**Note:**
- Note: Timing up to 5 seconds.
- Timed up & go (TUG)

**CDC STEADI website**
Initiate Action to Engage the ‘Rising-Risk’
Slow, stop or even reverse the progress of mobility-disability before ‘High-Risk’ Care Management

30% Rising-Risk
5% High Risk
Action
Care Management

30% Intervention Care
35% Low-Risk
Care Prevention
30% Healthy
Wellness

Mobility
Ask and Assess
Engage: What Matters Most?
Individualize: Collaborate
Build self-efficacy: Empower

Frailty: a state of increased vulnerability and functional impairment caused by cumulative declines across multiple systems

- Natural aging produces a strength decline of 10% a decade
- Weakness is the most common initial manifestation of the frailty phenotype
- 80% of transitions to frailty involve adding exhaustion

Age-Friendly Health Systems
4Ms: Know about the 4Ms for each older adult in your care
- Assess
- Act On

Collaboration Matters
Care Management Requires Collaboration

Health System Connections:
The importance of professional collaboration to build a continuum of care

- Identify risk factors impacting mobility
- Identify impairments and develop interventions to optimize and/or compensate
- Address activity limitations
- Improve participation

Address factors associated with reduced mobility
- Balance
- Weakness
- Aerobic endurance
- Falls
- Pain/injury
- Use of assistive device
- Environmental hazards
- Medications
- Depression

Connections in the “New Normal”:
The importance of building a continuum of care during COVID-19

- Limited access to healthcare services during the pandemic
- Increased risk of poor outcomes for those with chronic conditions
- COVID-19 induced shrinking life space and mobility disability

Address secondary consequences of the pandemic
- Loneliness
- Loss of social support
- Reduced access to services
- Increased sedentary behavior
- Exacerbation of chronic conditions
- Exacerbation of mental health issues (depression, stress, anxiety, substance abuse)

Clinical-Community Connections:
The importance of community collaboration to build a continuum of care

- Fall prevention
- Increase physical activity
- Promote health
- Motivate behavior change
- Enhance engagement and reduce social isolation

Address factors associated with reduced mobility
- Physical activity/exercise
- Fall prevention
- Chronic disease self-management
- Nutrition
- Pain self-management
- Depression
- And more...

What are EBPs?
How have they changed in the “New Normal”?

- Evidence-based programs (EBPs) offer proven ways to promote health and prevent disease among older adults. They are based on research and provide documented health benefits.

- There are four broad categories of evidence-based programs which can be found at the NCOA website:
  - falls prevention
  - general wellness and physical activity
  - chronic disease self-management
  - behavioral health.

NCOA website, Hergott 2020
Where do you find EBPs in your community?

- Area Agency on Aging
- YMCA
- Churches
- Senior Centers
- Community Centers
- Private Gyms

Virtual Expansion of Physical Activity & Fall Prevention Programs

Exercise and Physical Activity

- YouTube: Dr. Paul Lam
- National Institute on Aging Go4Life

Virtual Aging Mastery Program
Stepping On Fall Prevention Program

On-demand video workouts

Age-Friendly Mobility
Keeping Aging FUN

- Ask & Assess: Utilize self-report and functional assessments
- Engage: What Matters Most?
- Individualize: Utilize resources to find the best solution to increase mobility for each older adult
- Collaborate: Connect your patients to people & places that promote mobility (4Ms) for all older adults
- Empower: Aging is inevitable, but mobility-disability can be avoided by building self-efficacy
- Be a Role Model: fitness- patient care-health system
**Bibliography**


**Website Bibliography**


