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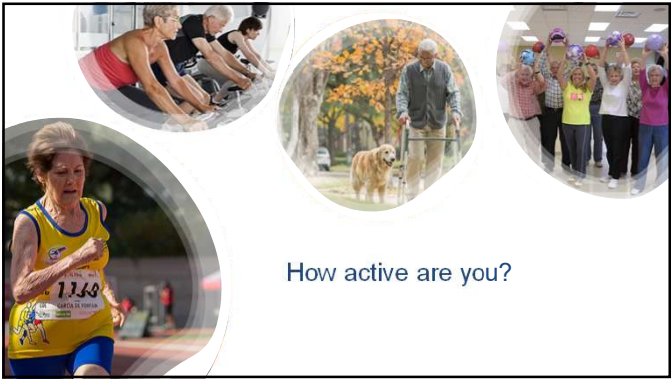
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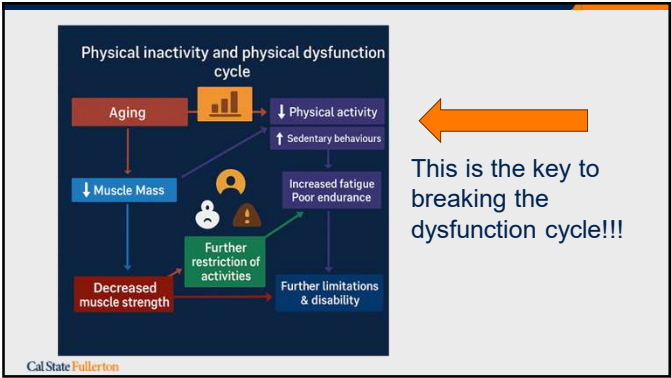
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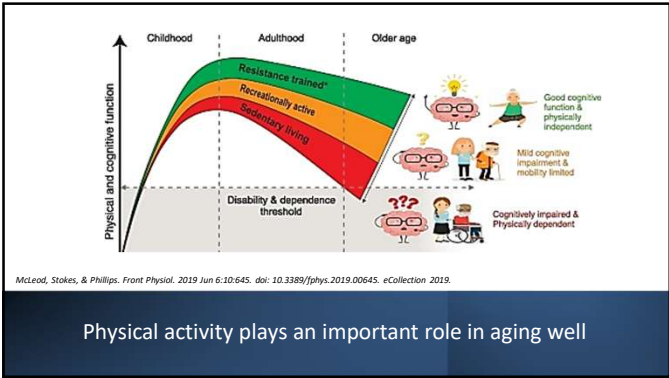
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### Health benefits of physical activity

|                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Improves:</b> <ul style="list-style-type: none"><li>cognition</li><li>bone health</li><li>physical function</li><li>balance</li><li>blood pressure</li><li>insulin sensitivity</li><li>sleep outcomes</li></ul> | <b>Reduces risk of:</b> <ul style="list-style-type: none"><li>Type 2 diabetes</li><li>High blood pressure</li><li>Adverse blood lipid profile</li><li>Cardiovascular disease</li><li>8 types of cancer</li><li>Dementia, including Alzheimer's disease</li><li>Falls &amp; fall-related injuries</li><li>Excessive weight gain</li></ul> | <b>Helps management of:</b> <ul style="list-style-type: none"><li>pain in osteoarthritis</li><li>hypertension and cardiovascular disease</li><li>Type 2 diabetes</li><li>osteopenia &amp; osteoporosis</li><li>respiratory diseases</li><li>multiple sclerosis, ADHD, and Parkinson's disease</li></ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

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Information adapted from the Physical Activity Guidelines for Americans, 2<sup>nd</sup> Edition. Available at [health.gov/PA/Guidelines](http://health.gov/PA/Guidelines)

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The benefits of physical activity extend well beyond the physical dimension

Quality of Life

Emotional Well-being

- Mood, anxiety, stress
- Self-efficacy
- Resilience

Social Well-being

- Relationships
- Connectedness

Intellectual Well-being

- Cognitive Benefits
- Learning, challenge

Vocational Well-being

- Goals, interests
- Engagement

Spiritual Well-being

- Meaning and Purpose
- Life satisfaction

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7

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Where do you get your physical activity during your day?



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8

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How much physical activity is enough?

Be active

at least 150 minutes moderate intensity per week, increase to 300 minutes

OR

at least 75 minutes vigorous intensity per week, increase to 150 minutes

or a combination of both

Build strength

to keep muscles, bones and joints strong

on at least 2 days a week

Gym, Yoga, Carry heavy bags, etc.

Minimise sedentary time

Break up periods of inactivity

For older adults, to reduce the chance of falls and falls

Improve balance 2 days a week

Dance, Tai Chi, etc.

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9

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Want to **get moving?**  
Try different types of exercise!

NIH

National Institute on Aging



**Aerobic**  
Aerobic exercises improve the health of your heart, lungs, and circulatory system.



**Muscle-strengthening**  
Muscle-strengthening exercises can help you stay independent and prevent fall-related injuries.



**Balance**  
Balance exercises help prevent falls and can improve stability.

To learn more about older adults and exercise, visit: [www.nia.nih.gov/exercise](http://www.nia.nih.gov/exercise).

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**Muscle-strengthening Activity**  
Physical activity, including exercise, that increases skeletal muscle strength, power, endurance, and mass

Frequency

• At least 2 days per week, with 1 day in between

Intensity

• Use resistance that you can move repeatedly but that cause your muscles to work harder than normal

Sets & Repetitions

• 3 to 4 exercises (major muscle groups; upper & lower body)  
• 1 to 3 sets of 8-12 repetitions

Examples

• lifting weights; resistance bands; bodyweight exercises; carrying heavy loads; heavy gardening



Image: Center for Successful Aging

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11

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**Aerobic Activity**  
Physical activity, including exercise, in which the body's large muscles move in a rhythmic manner for a sustained period



Aim for at least **150 minutes** of moderate-intensity physical activity



Or at least **75 minutes** of vigorous-intensity physical activity

What 150 minutes of moderate activity could look like



10 minutes of vacuuming



20 minutes of dancing



60 minutes of gardening



60 minutes of walking

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12

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### What do we mean by “moderate”?

Sleep   Sedentary   Light intensity   Moderate intensity   Vigorous intensity

| BPE Scale | Rate of Perceived Exertion                                                                                                                                         |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10        | <b>Max Effort Activity</b><br>Feeling almost impossible to keep going. Completely out of breath, unable to speak. Cannot maintain for more than a very short time. |
| 9         | <b>Very Hard Activity</b><br>Very difficult to maintain exercise intensity. Can barely breathe and speak only a few words.                                         |
| 7-8       | <b>Vigorous Activity</b><br>Breathless and uncomfortable. Short of breath, can speak a sentence.                                                                   |
| 4-6       | <b>Moderate Activity</b><br>Breathing heavily, can hold short conversations. Still somewhat comfortable, but becoming noticeably more challenging.                 |
| 2-3       | <b>Light Activity</b><br>Feeling you can maintain for hours. Easy to breathe and carry a conversation.                                                             |
| 1         | <b>Very Light Activity</b><br>Hardly any exertion, less than sleeping, watching TV, etc.                                                                           |

**Moderate**  
Sweat a little, breath harder

- Brisk walking
- Bicycling

**Vigorous**  
Sweat and be out of breath

- Cross-country skiing
- Swimming

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13

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### What if I have a chronic condition?

❖ It's important to understand how your condition(s) affect your participation in physical activity/exercise

| Medications                                                                                                           | Osteoarthritis                                                                                                                                       | Osteoporosis                                                                                            | Condition-specific programs                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>Blood Pressure</li><li>Heart Medications</li><li>Diabetes Medications</li></ul> | <ul style="list-style-type: none"><li>Balancing activity with pain management</li><li>Low-impact activities</li><li>Water-based activities</li></ul> | <ul style="list-style-type: none"><li>Appropriate exercises</li><li>Weight-bearing activities</li></ul> | <ul style="list-style-type: none"><li>Cardiac</li><li>Pulmonary</li><li>Stroke</li><li>Neurological Conditions</li><li>Frailty</li><li>Dementia</li></ul> |

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14

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### Activities to challenge balance

Balance and coordination are skills that need to be practiced

**Skills for Good Balance & Mobility**

- Weight shifting
- Stepping over objects
- Turning & changing directions
- Challenge limits of stability
- Managing a reduced base of support

Image: Center for Successful Aging

**Balance exercises to try**

- Side Stepping
- Leg Raises
- Shift & Lift
- Heel-Raises & Foot Taps
- Sit to Stand
- Standing Marches
- Heel-Toe Walking

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15

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### Being Active Safely & Effectively

- Consult your health care professional
- Start low, go slow
- Go at your own pace
- Include aerobic, strengthening, balance & flexibility
- Turn intensity up a little at a time

### Being physically active is only one part of the puzzle

1/3 of daily time

sedentary

#### IMPACT 65+ Study

- N=432 (65% women)
- ~31% of daily time sedentary
- Passive sitting is most common

Replacing 10 min of sedentary time per day with light activity was associated with improved blood pressure and HDL cholesterol

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Cabranas-Sanchez et al. (2019). *Medicine & Science in Sports & Exercise*, 51(4):671-680.  
McArdle KL, Rubin DA, Fisher KL. (2020). *Journal of Aging Research*. Article ID 3859472

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### Sitting Time: Social & cognitive contexts are key

Spending time in cognitively demanding sedentary activities reduces the risk of developing cognitive impairment or dementia

Recommendation: Limit total sitting time to < 8 hrs per day

- Take frequent movement breaks
- Limit screen time to < 3 hours per day

17

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### Find what you value in your physical activity

People

- make your activities social

Places

- feel comfortable & safe
- majestic beauty!

Purpose

- find a goal and act!
- physical activity can be a gateway

Move your way, Every Day.

18

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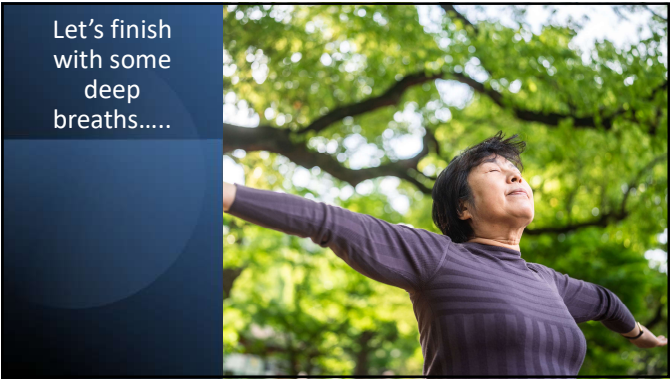
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