Exercise is Medicine for Brain Health

Presented by:
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Exercise is Medicine

BRAIN AFTER SITTING QUIETLY

BRAIN AFTER 20 MINUTE WALK

Research/scan compliments of Dr. Chuck Hillman University of Illinois
Exercise is Medicine
Types of exercise

- Aerobic training
  - Running, walking, swimming
- Resistance training
  - Lifting weights
- Anaerobic training
- Balance/Agility training
- Others: Yoga, Tai Chi, dance
What is good for your heart, is good for your brain!
“I have been working out for six months, but all my gains have been in cognitive function”

Kaamran Hafeez in The New Yorker, October 2015
What are the effects of aerobic exercise (walking, swimming) on brain health in older adults?
Aerobic Training
Studies that examined the effect of regular weekly walks (2 or 3 times a week) found:

- Improvements in functions, such as decision making and memory
- Reversal of some brain changes associated with aging, such as Hippocampus volume
What About Resistance Training?

- Less studied than aerobic training
- Has a role in healthy aging
- A focus in our SYNERGICIC Trial
SYNERGIC Trial

- **200** individuals with Mild Cognitive Impairment (MCI)
- **3** interventions

- Cognitive Training
- Physical Exercises
- Vitamin D
Research

The SYNEGRIC trial is a national research study for older adults with Mild Cognitive Impairment (MCI).

Join Us!

Are you feeling forgetful?

Have you had changes in your memory?

Are you 60 years old or older?

Contact one of our sites for more information about how you can join us!
Preliminary Results

Graph showing the effect of different interventions on ADAS-Cog 13 scores over time.

- **Control** (red line): Shows a trend towards worse outcomes.
- **Cognitive training** (green line): Maintains a stable score.
- **Physical exercise** (blue line): Shows an improvement over time.

Scores are indicated on the y-axis, with 12 being the worst and 17 the best. The x-axis represents visits over time in months (0 to 6).
• Combining aerobic training, progressive resistance training, and cognitive training is feasible, improved cognition, and showed a synergistic effect

• Cognitive improvements seen was at least as good or better than using cognitive enhancers medication

• We are not yet able to see the impact of Vitamin D supplementation, at this point in our research
What’s **recommended** for older adult’s brain health?
- Perform moderate-intensity aerobic training, for a minimum of 30 minutes/day, 5 days/week.
- Start slow and progress gradually
- Try to choose an activity you like!
Aerobic Exercises

• Marching on the spot
• Dancing
• Follow along aerobic exercise videos
• Stair climbing

* Remember to warm up and cool down!
What Can You do at Home?

Strength Training Exercises

Activities that requires you to move your limbs against resistance. Helps to build muscular strength, endurance and strengthens bones!

• Body weight
• Resistance bands
• Weights
• Household objects (water bottles, back packs, soup cans)

* Remember to warm up and cool down!
**FINAL TIPS**

1- Identify what exercises/activities you may already do
2- Try new physical exercises that you think that you will enjoy
3- In a safe community or area, walk to your destination, or park farther away from the entrance
4- Take the stairs instead of the elevator
5- Get moving throughout your day
6- Be patient and persistent
7- To stay motivated, consider doing physical activities with other people.
8- Make concrete plans to move your body – think about when, where and with whom you will be physically active

• **Internet exercise programs:**
  - [National Institute On Aging YouTube Channel](#)
  - [Silver Sneakers YouTube Channel](#)
  - [Greater Toronto YMCA YouTube Channel](#)
  - [Victoria Order of Nurses SMART program YouTube Channel](#)

• **Printable programs:**
  - [Home Support Exercise Program](#)
  - [National Institute On Aging Tracking Sheets](#)
  - [Seniors Helping Seniors Toolkit](#)
CCNA’s Team 12 (Mobility, Exercise, and Cognition) focuses on the relationship between physical activity, motor performance, and cognitive decline related to aging and neurodegeneration.

The team, composed of 22 researchers, is led by Drs Manuel Montero-Odasso and Louis Bherer

Manuel Montero-Odasso

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Team 12 Members

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THANK YOU
Questions?