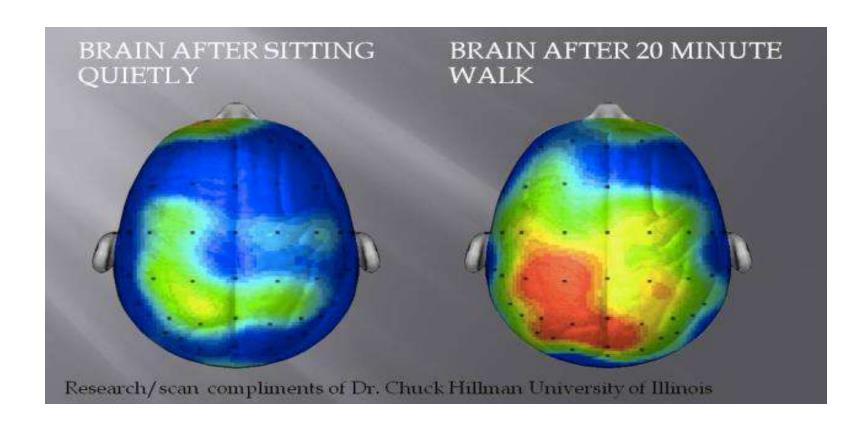


#### **Exercise is Medicine**



## **Exercise is Medicine**











## Wait, But Which Exercise?

#### Types of exercise

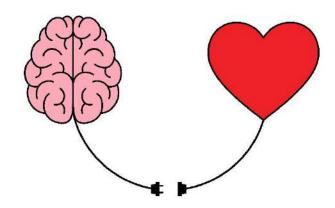
- Aerobic training
  - Running, walking, swimming
- Resistance training
  - Lifting weights
- Anaerobic training
- Balance/Agility training
- Others: Yoga, Tai Chi, dance





Photo courtesy of SYNERGIC participants, London site

# 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 The New Yorker, October 2015

# What are the effects of aerobic exercise (walking, swimming) on brain health in older adults?

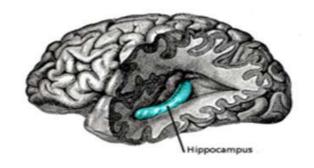
# **Aerobic Training**





### **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 SYNERGIC Trial





### **SYNERGIC** Trial

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





#### **SYNERGIC TRIAL**



Cutting-edge interventions to improve cognition, mobility and falls.









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

Read more



#### Join Us!

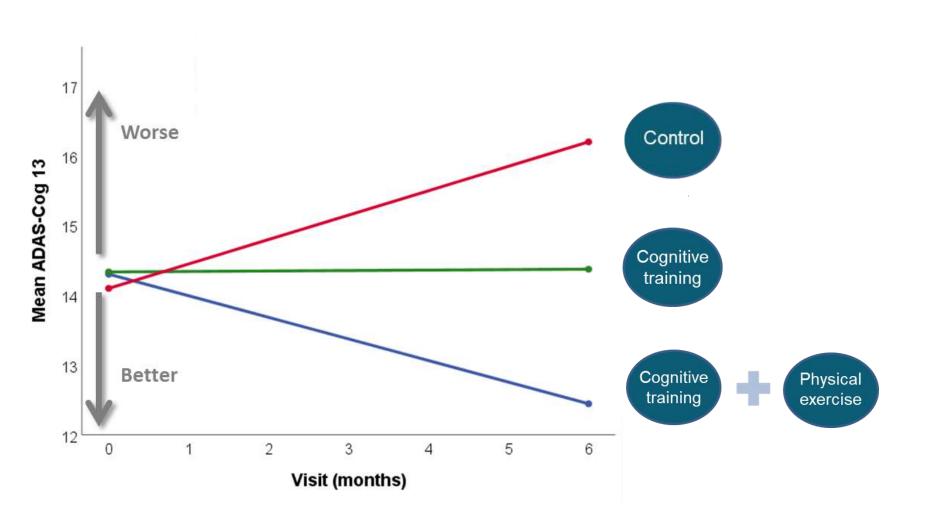
Are you feeling forgetful?

Have you had changes in you memory?

Are you 60 years old or older?

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

#### **Preliminary Results**



#### Conclusions of the SYNERGIC Trial

- 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



#### Talk Bottom Lines

- 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!

#### What Can You do at Home?

#### **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 and Links

#### **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 Team 12**

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



**Louis Bherer** 

#### **Team 12 Members**



**Quincy Almeida** U Wilfrid-Laurier



**Cindy Barha UBC** 



Olivier Beauchet Amer Burham U McGill



**U** Western



**Richard Camicioli** U Alberta



**Julien Doyon** U McGill



Sarah Fraser U Ottawa



Karen Li U Concordia



Teresa Liu-Ambrose Bradford McFaydenChris McGibbon **UBC** 



**U** Laval



U New-Brunswick



William McIlroy U Waterloo



Laura Middleton U Waterloo



José Morais U McGill



**Susan Muir-Hunter U** Western



**Lindsay Nagamatsu U** Western



**Ervin Sedjic** U Pittsburg



**Kevin Shoemaker U** Western



**Mark Speechley U** Western



Akshya Vadusev **U** Western

# THANK YOU Questions?

