

# The Importance of Physical Activity

Engaging in physical activity in older adulthood is protective for cognitive functioning and increased healthspan

Based on over  
**52,000**  
participants  
from North America and Europe

FOR EXAMPLE

**5X**  
30 MIN  
PER WEEK

AS LITTLE AS

**150**  
MIN  
PER WEEK



**Reduces the risk**  
of  
cognitive impairment



THE BENEFITS OF  
**MODERATE**  
PHYSICAL  
ACTIVITY



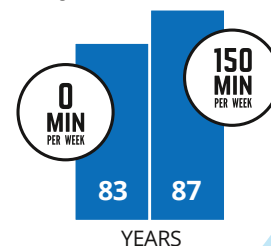
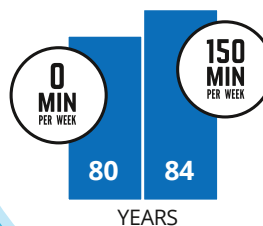
Especially  
important  
prior to  
onset

Also  
protective  
after onset of  
cognitive  
impairment

**Increases  
life expectancy**

A typical  
70 year old male

A typical  
70 year old female



**Alzheimer Society**  
BRITISH COLUMBIA

Proud supporters of knowledge translation efforts

For more information, see [https://pubmed.ncbi.nlm.nih.gov/33099603/Yoneda et al., 2020, The Journal of Gerontology: Medical Sciences](https://pubmed.ncbi.nlm.nih.gov/33099603/Yoneda%20et%20al.,%2020,%20The%20Journal%20of%20Gerontology:%20Medical%20Sciences)  
Please feel free to contact Dr. Tomiko Yoneda with questions: [tiko@uvic.ca](mailto:tiko@uvic.ca)  
Cover page designed by DesignCoast Creative: [designcoast.ca](http://designcoast.ca)

# The Importance of Physical Activity

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Do you ever feel like the drawbacks that go hand-in-hand with exercising outweigh the potential benefits?

You are **not** alone.

This feeling is **extremely** common among older adults. Fears of injury or worries about health limitations commonly leave older adults feeling as though exercising is simply not worth it.



Still, physical activity is incredibly beneficial for health and well-being. And, most importantly, high-intensity exercise is not necessary to experience the benefits of physical activity. Low-intensity physical activities, like brisk walking and/or gardening, are also beneficial for older adult health.

For older adults, physical activity is crucial for the maintenance of cognitive health and longevity. The following pages summarize the types of exercise that are beneficial and the mechanisms underlying the association between physical activity and better cognitive health.

You may now want to know:  
***What exactly are the benefits of participating in more physical activity?***



**Our research highlights three main health benefits associated with older adult physical activity:**

1

**Physical activity is especially protective for older adult cognition prior to the onset of cognitive impairment. *Cognition* refers to your memory, ability to think, apply logic, and more.**

Engaging in more physical activity is associated with lower risk of cognitive impairment. Our research suggests that physical activity reduces the chance that someone who has no cognitive impairment will develop mild cognitive impairment.

2

**After the onset of cognitive impairment, physical activity is still protective.**

Our research suggests that exercising more may increase the likelihood of reducing the symptoms of cognitive impairment for those with severe cognitive impairment.

3

**Physical activity increases life expectancy.**

Individuals who exercise for approximately 20 minutes each day live longer than those who do not exercise. Also, adults who exercise for approximately 45 minutes each day live longer than individuals who exercise for approximately 20 minutes each day.





## All exercise is good for you, but some forms of physical activity are more beneficial than others.

Our research shows that higher levels of exercise intensity are typically more beneficial for protecting against cognitive decline. While a minimum of 150 minutes of moderate exercise a week is recommended, this can be shortened with more intensive activities. Lower intensity activities require a longer amount of time in order to gain the same beneficial effects. The following are some examples of exercises of varying intensity.

High

**Sports** (squash, tennis)  
**Cycling**  
**Swimming**  
**Running**



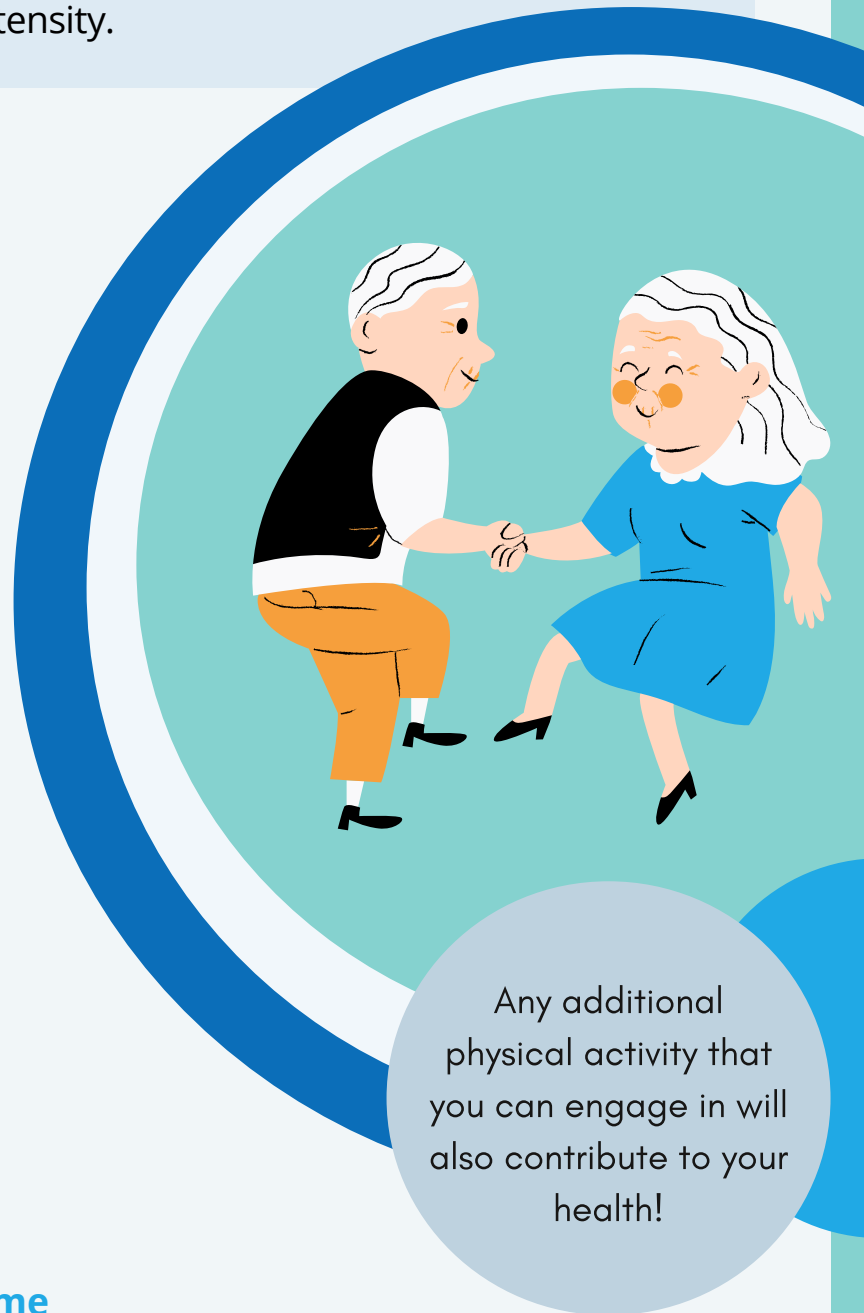
Mid

**Aerobics**  
**Calisthenics** (yoga)  
**Partner Dancing**  
**Pickleball**



Low

**Tai Chi**  
**Gardening**  
**Hiking or Long Walks**  
**Playing with Grandkids**  
**Working Around the Home**



Any additional physical activity that you can engage in will also contribute to your health!

# More In-Depth Information:

Physical activity impacts cognitive functioning, cognitive decline, and life expectancy in various ways. To understand how physical activity can reduce the likelihood of cognitive impairment and the development of dementia (e.g., Alzheimer's disease), you may wish to understand the processes that underlie cognitive decline.

Changes in memory and comprehension are related to changes in the brain, specifically in areas that manage memory and cognitive functions. These changes occur as the brain degenerates.

**Neural degeneration** is associated with changes in memory, comprehension, and personality. Commonly, older adults with mild cognitive impairment will experience further cognitive decline, eventually developing dementia (e.g., Alzheimer's disease). Alzheimer's disease eventually impedes all aspects of life, and is one of the most common causes of death. However, physical activity can minimize the likelihood of cognitive decline.

**Research shows that physical activity contributes to neural plasticity via neurogenesis, leading to increased hippocampal volume.**

**Neural plasticity** is the ability of the human brain to change neural networks in response to experiences and injury.

Neural plasticity can occur as a result of **neurogenesis**. Neurogenesis is the generation of new neurons in the human brain. One example of neural plasticity via neurogenesis is increased volume of the hippocampus. The hippocampus is a part of the human brain that is essential for recalling and regulating memories.

Physical activity may also increase cognitive reserve.

**Cognitive reserve** refers to the ability to withstand the symptoms of cognitive decline, despite neurodegeneration.

Symptoms of cognitive impairment tend to appear later on in those with greater cognitive reserve.

