It is not possible to provide a physical activity formula that is optimum for brain health and function or for lowering dementia risk. The evidence to date comes from a wide variety of studies. These studies show that physical activity in different ways, look at different types and intensities of activity, and use different durations and frequencies of exercise sessions. The good news is that when we put the evidence together, it does show that many forms of physical activity are beneficial for brain health and cognitive function.

Physical activity is generally grouped into four categories. Because each of these focus on improving particular functions of the body, you’ll get the most benefit from regularly engaging in each of some kind.

Aerobic or endurance exercise is physical activity that increases your breathing and heart rates. Performed regularly it improves endurance and the health and fitness of your lungs, heart and blood vessels. It includes activities like walking, jogging, swimming, cycling and even energetic household chores such as vacuuming and raking leaves. Aerobic activity is very effective for increasing health and fitness in the heart and blood vessels. It includes activities like walking, jogging, swimming, cycling and even energetic household chores such as vacuuming and raking leaves.

Flexibility exercises are those that stretch your muscles so they help keep your muscles and joints flexible. There are numerous types of stretching exercises you can do, and they all help improve your balance and coordination. Flexibility exercises can be done as often as you like.

Balance exercises help to improve balance and coordination and reduce the risk of falls. They include exercises that test your balance and activities like tai chi. Lower-body strength exercises, yoga and plates can also help improve your balance. As with stretching, balance exercises may not be as beneficial for brain health, but are nonetheless very important to include in your routine, especially for older adults. Guidelines recommend older adults do balance exercises at least 3 times a week.

Strength training is physical activity that utilizes weights or resistance, including your own body weight, to work muscles. Performed regularly it improves muscle strength and tone, as well as the health and fitness of tendons, bones and joints. Only a few studies have investigated the effects of strength training on brain function, and results have been mixed. Strength training has been shown to be beneficial in preventing and managing diabetes, an important risk factor for dementia. Some studies have found that aerobic programs combined with strength training are more beneficial than either alone. Guidelines recommend do strengthening exercises for each major muscle group for 30 minutes at least twice a week.

Engaging in regular physical activity is great for your brain, body and heart. Physical activity has emerged as an important risk factor for cognitive impairment and dementia. The good news is that you can do something about this. People doing regular physical activity at all ages have better cognitive abilities, better brain health and a lower risk of developing dementia. Physical activity may also help maintain abilities and slow decline in people with cognitive impairment or dementia.

Whatever your stage of life, being fit and healthy matters.

Your Brain Matters is an evidence-based program that promotes brain healthy lifestyles and seeks to reduce the risk of dementia in the Australian population. It provides you with three key messages to maximise your brain health:

- Keeping your brain active matters
- Being fit and healthy matters
- Looking after your heart matters

For more information on Your Brain Matters, and for tips on how to live a brain healthy lifestyle, visit yourbrainmatters.org.au.

PHYSICAL ACTIVITY CAN IMPROVE YOUR BRAIN HEALTH AND REDUCE YOUR RISK OF DEMENTIA

A summary of the evidence presented in Alzheimer’s Australia’s Paper 36

PHYSICAL ACTIVITY FOR BRAIN HEALTH AND FIGHTING DEMENTIA

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Why Are We Concerned About Brain Health?

We would all like to maintain good memory and a sharp mind throughout life. That depends on the health of our brains. We expect brain function to slow down as we grow older, but many people fear being affected by dementia.

Dementia is characterised by a decline in cognitive abilities—the thinking functions of the brain—that impacts significantly on daily life. Lost abilities may include memory, attention, language, planning, judgement, spatial skills and social skills. Dementia is not a normal consequence of ageing: it is caused by brain disease, most commonly Alzheimer’s disease, but there are over a hundred causes of dementia. Someone with dementia experiences a progressive decline in the brain’s ability to function well. Physical activity supports both these important aspects of brain biology.

We are still learning how physical activity affects brain biology and function. We now know that the brain contracts in grey matter, and connections between them, helping their brain to function more effectively. Older adults who are physically active have a lower risk of decline in their cognitive abilities and of developing dementia, compared to those who are inactive.

Feather studies have investigated the association between midlife or earlier physical activity and late-life cognitive impairment. Most have found that midlife exercise is associated with a lower risk of later developing dementia. Given that the diseases that possible, we can delay the onset of dementia and slow its progression.

To estimate that over 320,000 Australians are living with dementia in 2013. Without a significant reduction in dementia prevalence, simply by getting 2051. That equates to around 100,000 fewer million cases of Alzheimer’s disease worldwide. Strenuous exercise may also reduce the rate of decline in people with mild cognitive impairment, and most of these demonstrate improvement in cognitive function associated with increased physical activity.

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When inactive people start exercising, and some have shown that after 6 to 12 month exercise interventions, brain volume increases and cognitive functions improve. These effects have been shown in children as well as older adults, so no matter what your age, increasing your physical activity has the potential to improve the health and function of your brain.

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