

EXERCISE & BRAIN HEALTH - THE SCIENCE PROVES MOVEMENT IS YOUR BRAIN'S MIRACLE DRUG

Brain Health for Life™ | It's Never Too Late

Exercise Works at ANY Dose

When it comes to protecting your brain from cognitive decline and dementia, exercise is the closest thing we have to a miracle drug.

And the latest research shows something remarkable: you don't need to be an athlete. You don't need to run marathons. You don't even need to exercise for hours.

A landmark 2025 study from Johns Hopkins Bloomberg School of Public Health analyzed nearly 90,000 adults using smartwatch activity trackers and found something that should give everyone hope:

Just 35 minutes of moderate-to-vigorous physical activity per week—compared to none at all—was associated with a 41% lower risk of developing dementia over an average 4-year follow-up period.

Even more encouraging: Just 5 minutes of light exercise per day can help prevent dementia, even for frail older adults.

This changes everything about how we think about exercise and brain health. It's not about perfection. It's about movement—any movement—consistently.

THE DOSE-RESPONSE RELATIONSHIP: More Movement = More Protection

The research reveals a dose-dependent relationship: the more you move, the more your brain is protected.

Weekly Exercise and Dementia Risk Reduction:

Weekly Exercise Dementia Risk Reduction

35 minutes	41%
36-70 minutes	60%
71-140 minutes	63%
140+ minutes	69%

The critical insight: The greatest benefit per minute of exercise comes from moving from no activity to some activity.

This means if you've been sedentary, your first steps matter most. Those initial 35 minutes per week produce a 41% risk reduction. Adding more is valuable, but the jump from zero to something is powerful.

The message: If you're currently not exercising, starting with 35 minutes weekly will produce profound brain protection. If you're already active, you're getting even greater benefits.

WALKING SPECIFICALLY: The Most Accessible Brain Medicine

Perhaps the most actionable research for your daily life is what scientists have learned about walking—specifically, how many steps and at what pace.

Step Count Benefits:

Recent studies have translated exercise benefits into specific step counts:

- **3,800 steps per day (minimal dose)**
- **4,000-10,000 steps per day**
- **6,315 steps per day at brisk pace**
- **Additional 1,865 daily steps**

Research suggests higher step counts are linked to a reduced risk of dementia and improved overall cognitive processing as you age

What this means: You don't need to hit the famous 10,000-step target to see significant benefits. Even 3,800-4,000 steps daily provide meaningful brain protection.

Walking Pace Matters:

The speed at which you walk is equally important—sometimes more important—than the distance:

- **40+ steps per minute (casual walking pace): 57% dementia risk reduction**
- **112 steps per minute (brisk pace, approximately 3.4 mph) for 30 minutes daily: 62% dementia risk reduction—the highest achieved in recent studies**

How to calculate your pace: Count the number of steps in 10 seconds, then multiply by 6 to find your steps per minute.

The practical message: Brisk walking—where you can talk but not sing—for 30 minutes daily provides the most powerful dementia protection through walking. But even casual-paced walking at 40+ steps per minute offers substantial protection.

THE TIME REQUIREMENT: Surprisingly Achievable

One of the most empowering findings from recent research is that the time investment needed for brain protection is much lower than many people assume.

Research Shows:

- **15 minutes of exercise 3 times per week:** 30-40% lower dementia risk
- **20-30 minutes per day:** Protects against dementia
- **31 additional minutes daily of moderate-to-vigorous activity:** 21% lower risk of cognitive impairment or dementia
- **35 minutes per week total:** 41% dementia risk reduction

Standard recommendation from CDC/HHS: 150 minutes of moderate-intensity aerobic exercise weekly (about 30 minutes, 5 days a week)

The important context: Most people don't need to reach 150 minutes to see cognitive benefits. Even 35 minutes weekly provides substantial protection. If you can work toward 150 minutes, you get even greater benefits. But partial adherence is far better than none.

THE COGNITIVE BENEFITS: Three Critical Brain Areas Protected

Research across multiple studies shows that exercise improves three key cognitive domains:

1. Executive Function

Your brain's "command center"—the ability to plan, make decisions, solve problems, and organize your thoughts. Executive dysfunction is often the first sign of cognitive decline people notice.

Exercise strengthens executive function through enhanced BDNF production and improved prefrontal cortex function.

2. Memory

Both short-term memory (holding information briefly) and long-term memory (retrieving information from the past) are improved by regular exercise.

This happens through hippocampal enhancement—the brain's memory center grows and strengthens with exercise.

3. Processing Speed

How quickly your brain processes information and responds. Slowed processing speed is a hallmark of cognitive aging.

Exercise improves processing speed through enhanced neural efficiency and increased blood flow to the brain.

SOURCES & REFERENCES

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