From the PHP Team, Health & Wellness

The importance of exercise for brain health and longevity

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Study after study indicates that exercise is the single most effective tool we have for delaying health deterioration, preserving brain health, and extending our lifespan.

An enormous amount of time, effort, and dollars are spent every year in the quest to slow aging, stay healthy, and preserve our quality of life as we take another spin around the sun. Through all of this, have we overlooked the most basic, simple action an individual can take to impact their brain health? Let's take a look at a few recent studies that have sought to gain more knowledge and evidence on just how impactful exercise can be for the health of our brain.

- According to a **study** from the National Institutes of Health, the number of steps taken each day has a major impact on the risk for all-cause mortality (or death from all causes.) Their research compared taking 4,000 steps per day (a number considered low for adults), to taking 8,000 steps per day. This increase indicates a 51% lower risk for all-cause mortality. Additionally, bumping up the daily step count to12,000 steps per day suggests a 65% lower risk compared to those taking just 4,000 steps.

- Another recent **study** recruited nearly 300 sedentary older adults with mild cognitive impairment (MCI), which is sometimes a precursor to Alzheimer's. Participants were assigned either aerobic exercises or stretching-balance moves for 30-45 minutes, four times a week. After a year, lead researcher Laura Baker, a neuroscientist at Wake Forest School of Medicine, found that cognitive testing did not worsen and brain scans did not show any shrinkage that accompanies worsening memory problems. By comparison, similar MCI patients in another long-term study of brain health — but without exercise — experienced significant cognitive decline over a year.

- Dr. Peter Attia, a Canadian-American physician known for his medical practice that focuses on the science of longevity, **finds** that people with low muscle mass have nearly a 200% increase in all-cause mortality (or dying of any cause) as they age, compared to those with high muscle mass. Dr. Attia adds it's less about the muscle mass itself, but rather the high association with strength. And if you look at cardiorespiratory fitness, the benefit is even more profound. He found for those with a VO2 max in the bottom 25% for their age and sex compared to people at the top (elite) for a given age, there's a 400% difference in all-cause mortality, which is the single strongest association he's ever seen for any modifiable behavior.

So, what does this research tell us?

Let's take this information, improve our knowledge, and put a plan into action to improve our longevity.

What we now know:

1. Exercise has a huge impact on disease and mortality.

2. Exercise has positive effects for reducing aging and improving longevity, even down to a chromosomal level.

3. Exercise is like a drug, triggering the release of hormones that provide neurogenesis, or the creation of new brain cells.

What can we do?

You may be wondering, how much and what type of exercise should we focus on to preserve brain health and longevity? The answer, according to the research, is to prioritize strength training and aerobic fitness -- while maintaining other areas of fitness such as stability and flexibility. Aim for 30-45 minutes, four times a week, whether it's a vigorous turn on the treadmill or stretching exercises. Your brain health will thank you!

These results also suggest this is a topic of importance for everybody — not just for seniors. Exercise needs to be part of the prevention strategy for all ages. Reflect on your overall health and wellness goals, and find something you can do to build a better 2.0 version of yourself in the new year.