

## BRAIN HEALTH BOOST



### As We Age, Exercise Makes a Difference and Brain Health Matters

*The Brain Health Initiative (BHI) is working to develop brain healthy communities, creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health, optimizing brain performance, and fighting brain illness across the lifespan for the Florida Suncoast region and beyond. Today, we look at the importance of continuing to exercise as you get older, and the implications to brain health as you age.*

Our strength, stamina, and flexibility start to diminish as we age, but that doesn't mean we should throw in the towel and stop moving. Physical activity is one of the brain health protective factors, referenced by BHI as a pillar of brain health. Exercise improves blood flow to, from, and within, the brain providing oxygen and nutrients for optimal brain health and performance — which is important across the lifespan, even as we age.

Research supports the benefits of exercising as we age. For many years, studies have shown that exercise can slow and often reverse the loss of physical function. In a landmark 1994 study published in the [New England Journal of Medicine](#), researchers from Harvard University and Tufts University concluded even the oldest and most frail participants showed improvement after performing resistance exercises three times a week for 10 weeks. Other studies demonstrate that people in their 70s and 80s can become more physically fit, even if they have never exercised before.

Equally exciting is the research related to physical exercise and its implications for supporting brain health, optimizing performance and fighting brain illness, across the lifespan, including cognitive decline, as we age. Healthy aging is all about healthy living. The updated guidelines for physical activity still include at least 150 minutes of moderate activity for all Americans. But a [Harvard Health](#) post points out that, for the first time, the guidelines include specific recommendations for certain age groups, notably for this article, for those people over the age 65. As we age, the report recommends activities that include balance training, aerobic exercise, and muscle strengthening: all which help prevent falls.

Physical activity helps fight some of the effects of aging on our body and brain, including the neurological and psychological changes. Endurance exercise, for example, boosts mood and improves sleep, countering anxiety and depression. In addition, it improves reflex time and balance, helping to stave off falls and age-related memory loss. All in all, many of the changes that physiologists attribute to aging are actually caused by disuse. As this table from [Harvard Health](#) shows, using your body keeps it young.

### Exercise vs. Aging

	Effect of aging	Effect of exercise
<b>Heart and circulation</b>		
Resting heart rate	Increase	Decrease
Maximum heart rate	Decrease	Slows the decrease
Maximum pumping capacity	Decrease	Increase
Heart muscle stiffness	Increase	Decrease
Blood vessel stiffness	Increase	Decrease
Blood pressure	Increase	Decrease
<b>Blood</b>		
Number of red blood cells	Decrease	No change
Blood viscosity ("thickness")	Increase	Decrease
<b>Lungs</b>		
Maximum oxygen uptake	Decrease	No change
<b>Intestines</b>		
Speed of emptying	Decrease	Increase
<b>Bones</b>		
Calcium content and strength	Decrease	Increase
<b>Muscles</b>		
Muscle mass and strength	Decrease	Increase
<b>Metabolism</b>		
Metabolic rate	Decrease	Increase
Body fat	Increase	Decrease
Blood sugar	Increase	Decrease

Insulin levels	Increase	Decrease
LDL ("bad") cholesterol	Increase	Decrease
HDL ("good") cholesterol	Decrease	Increase
Sex hormone levels	Decrease	Slight decrease
<b>Nervous system</b>		
Nerve conduction and reflexes	Slower	Decrease
Quality of sleep	Decrease	Increase
Risk of depression	Increase	Decrease
Memory lapses	Increase	Decrease

So what’s holding many of us back from exercising as we age? There are many excuses for not exercising so let’s tackle them one at a time.

**“I’m too old to exercise.”** We talked about this one above. Exercise is good for just about everyone. Even moderate physical activity can have a big impact. Take it easy but get started with just 5-10 minutes of moderate activity each day. People who have been inactive may want to speak with a doctor first.

**“I need to take it easy.”** It’s not age that makes you feel like you need to rest, it’s inactivity. Even older adults with serious health problems — heart disease, diabetes, arthritis — can live better lives by getting up and moving.

**“My heart isn’t strong enough.”** The more active you are, the lower your risk for heart attack and stroke. Stick to moderate aerobic activities like a brisk walk or an easy bike ride. Even mowing the lawn and heavy house cleaning count as aerobic exercise. Ask your doctor about the best type of exercises for you.

**“I can’t move like I used to.”** Focus on exercises that promote flexibility in addition to those that improve endurance, strength, and balance. Yoga is great for improving flexibility and stretching exercises that target the hips, legs, shoulders, neck, and back can help with stiffness. Just take it easy and don’t stretch so far that it hurts.

**“I hate exercising.”** The key to physical activity is to find things that you enjoy doing — and doing them. Exercise doesn’t have to mean going to the gym or running marathons. Walking around the neighborhood, working in the yard or biking one of the many trails we have here on the Suncoast are all good ways to exercise.

**“I don’t have time to exercise.”** A full schedule is no reason to skip exercise. Considering all of the benefits of regular physical activity and the minimum time required, just 150 minutes a week (30 minutes a day if we take the weekend), the answer is clear: If you want to stay healthy, you can find the time.

**“I’m afraid I’ll fall.”** Falling is a concern for many of us as we age, but with regular physical activity, including exercises that promote proper balance, you can help prevent falls as you age.

**“I’ll hurt myself.”** A doctor can help identify what type of activity is best if you are inactive or have health problems. Try starting slowly with low-intensity exercises. Remember to drink plenty of water, listen to your body, warm up before your workout, and cool down after it.

**“I’m more worried about my brain health than my physical health.”** Physical health *IS* brain health. Exercise is great for your brain. It can help reduce depression and anxiety and improve your focus.

As the research shows, when it comes to exercising, age is just a number. So no more excuses — get up and get moving.

## WHAT YOU CAN DO TODAY TO BOOST YOUR BRAIN HEALTH

If you’re ready to get moving but don’t know where to start, [Harvard Health](#) has a variety of resources including this special report, [Strength and Power Training for Older Adults](#). The following types of exercises promote the health and performance of the body, brain, and heart.

**Endurance training.** Endurance exercise is the best way to improve your cardiovascular and metabolic function. It helps keep the heart muscle supple and the arteries flexible, boosts the heart's ability to deliver oxygen-rich blood to your brain, and it can help lower blood pressure. It also reduces body fat and lowers blood sugar levels,

**Strength training.** Also called resistance training, strength training uses light weights or exercise machines to enhance your muscle mass and strength and preserve bone calcium. A trainer can help you get started, but with simple directions and precautions, you can develop a safe and effective home program.

**Flexibility training.** You want to be able to move freely and stretching and flexibility training, like Yoga, can help. Stretching exercises are an ideal way to warm up before and cool down after endurance.

**Balance exercises.** Improving your balance can help slow some common effects of aging. It will help you move gracefully, avoid injuries, and prevent falls.

- **And don’t forget to *BE BRAIN HEALTHY* and adopt a Brain Healthy Lifestyle**, including thoughts, behaviors, emotions, responses and language that promote:
  - a. Stress resilience
  - b. Nutrition
  - c. Physical activity
  - d. Sleep
  - e. Social connection
  - f. Emotional wellbeing
  - g. Meaning and Purpose
  - h. Cognitive stimulation and creativity
  - i. Engaging with nature
  - j. General health
  - k. Positive impacts

**About the Brain Health Initiative ([www.brainhealthinitiative.org](http://www.brainhealthinitiative.org))**

The Brain Health Initiative (BHI) is a cutting-edge, new approach to protecting brain health, optimizing brain performance, and fighting brain illness across the lifespan. The BHI is a collaborative effort with Massachusetts General Hospital, a Harvard Medical School Teaching Hospital, to build brain healthy communities through education, collaboration, research, innovation, and action, with a specific focus on *brain health promotion, prevention, early detection, evidence-based intervention and optimization of performance*. The BHI is creating a culture that promotes brain health protective factors and decreases risk factors, thereby improving brain health and optimizing brain performance outcomes for the Florida Suncoast region and beyond. Join the brain health movement, ***because brain health matters, and lifestyle makes a difference***. To view all Brain Health Boosts [click here](#).