



Healthy matters to keep in mind.

# Life Balance

July 2013

## The Youth Elixir: Exercise Good for the Body; Great for the Brain.

Are you concerned that you forgot where you placed your keys too many times this week or that you couldn't recall your sister's-husband's-step-brother's name right after he told you? Have you made an appointment with your doctor to check your memory? Are you afraid you may be feeling the onset of dementia or possibly Alzheimer's Disease (AD)?

If so, it's a very valid concern. Presently one in eight baby boomers in the U.S. suffer from AD and the statistics point to a huge increase in the years to come: nearly 16 million by 2050.<sup>1</sup> That's about one in five of your

cohorts. Can anything be done?

### Press the Pause Button

While there is no known cure at the moment, there is something you can do to enhance your memory and thinking abilities now and delay the onset of dementia and AD. Believe it or, it's not a pill. It's exercise.

### Stop the Rust

As we age, some loss of memory and cognitive function is to be expected. Our brain, like a car that's been exposed to the elements for a long time, tends to rust from burning too much oxygen. With AD, however, the oxidative damage increases beyond what we see in normal aging.<sup>2</sup>

We notice it first in the hippocampus, an area of the brain shaped like a seahorse that is vital to learning, memory and higher thinking. Loss of short-term memory and disorientation appear

among the first symptoms. Unfortunately, by the time we notice these symptoms, 50–75% of the nerve cells that are important for memory may already be damaged or lost.<sup>3</sup>

### Good for the Body—Great for the Brain

The good news is that recent studies using mice have shown that short exercise bursts enhanced the animals' thinking process so that those that exercised fared much better than the sedentary ones when tested for learning and recall. This is because — for humans as well as mice — aerobic exercise increases brain-derived neurotrophic factor or BDNF, a molecule that is key to maintaining not just memory, but the ability to plan and juggle several tasks at a time. This is because it causes nerve cells in the hippocampus to multiply.<sup>4</sup>

This finding is not to be taken lightly. By increasing BDNF, we're not just helping maintain

## Exercise can be fun if you love what you do

Consider any type of exercise of low to moderate intensity that increases your heart rate and makes you break out in a sweat, such as:

### Home or gym equipment:

- Stair climber
- Elliptical trainer
- Treadmill
- Stationary bike

### Playing outdoors:

- Cycling
- Cross-country skiing
- Tennis
- Basketball
- Skating
- Jogging

### Group fit classes or other activities:

- Dance classes such as Zumba
- Kickboxing
- Step aerobics
- Swimming
- Working with a personal trainer

Once you find something you love to do, stick to it. Work out at least for 30 minutes every day. Of course, you should always check with your doctor before starting a new exercise routine.

## SEAP

Call toll-free  
(800) 692-7459  
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or log on to  
[www.liveandworkwell.com](http://www.liveandworkwell.com)  
access code: Pennsylvania

the memories we already have (long- and short-term), but we're actually capable of making new ones and of learning new things. This is quite revolutionary.

### **Bust a Move — Boost the Mood**

As if improving brain function and memory wasn't enough, BDNF has also been proven to play a role in regulating stress and improving mood disorders. It's actually the best natural antidepressant you can take and one of the best treatments available for most psychiatric problems.<sup>5</sup>

So instead of the medicine cabinet, open your closet, pull out your sneakers, pick up a friend or two and head out for your workout. When you get back with an endorphin-generated smile on your face, sit down to a bowl of berries, the bluer the better. Why?

Because antioxidants have also been found to protect the brain from dementia and AD. These wonderful substances, appropriately named, are found in certain fruits and vegetables (berries, kale, chard, spinach, carrots) and protect the body from oxidation (rust) and free radicals that damage and may kill cells.

### **Teaching Old Dogs New Tricks**

A study out of the University of California, Irvine, has shed some light on the significant correlation between brain rejuvenation and antioxidants.

During a three-year period, a group of aged beagles were fed a diet rich in antioxidants. What scientists found was that these dogs not only performed their old tricks better, they actually learned new ones. Again, BDNF was a contributing factor, acting as a fertilizer to the neurons, helping to make new connections in the brain.<sup>6</sup>

### **Wellness Habits that Protect Your Brain<sup>7</sup>**

Besides regular exercise and a healthy diet rich in antioxidants, here are other things you can do to feel better, look better and stay sharp in your later years.

- Keep learning (work with puzzles, learn a new language, use your opposite hand)
- Be social — stay in touch with friends, go out and do things
- Don't smoke
- If you drink alcohol, do so in moderation (1oz/day for women; 2 oz/day for men)
- Manage stress
- Get a good night's sleep



### **You Can't Afford Not to Exercise**

If you're thinking: This is all well and good but I'm too old, too out-of-shape, too busy or have too many maladies to start an exercise regime, remember that a healthy lifestyle can only enhance your life and that of your loved ones. By staying active and keeping fit you'll not only help prevent physical and mental decline; you'll actually thrive well into your golden years.

#### **For AD related information, visit the sites listed below:**

<http://www.alz.uci.edu/exercise-and-diet-in-alzheimers-disease/>  
<http://www.alz.org/>

## Resources

[www.liveandworkwell.com](http://www.liveandworkwell.com)

Visit the Live Well section for more information, tools, articles, self-help programs and resources related to life, family and relationships.

1 Alzheimer's Association Report 2012 Alzheimer's disease facts and figures [http://www.alz.org/alzheimers\\_disease\\_21590.asp](http://www.alz.org/alzheimers_disease_21590.asp)  
2 <http://www.alz.uci.edu/exercise-and-diet-in-alzheimers-disease/>  
3 Reisa Sperling, MD, Director of Clinical Research, Memory Disorders Unit, Brigham and Women's Hospital, Harvard Medical School  
4 <http://www.alz.uci.edu/exercise-and-diet-in-alzheimers-disease/>  
5 Ratey, John J, MD, and Hagerman, Eric. Spark: The Revolutionary New Science of Exercise and the Brain  
6 <http://www.alz.uci.edu/exercise-and-diet-in-alzheimers-disease/>  
7 <http://www.health.harvard.edu/newsweek/exercise-estrogen-and-executive-function.htm>