

Building a Better Brain

By Dr. Craig Roberts on 06/05/2009

Memory is a skill that most of us would like to sharpen. In addition to providing us with convenience and confidence, memory is a sign of our overall health. Your brain is not separate from the rest of your body—it is totally integrated with each and every one of the ten thousand trillion cells that make up your body.

All of the same strategies that help to develop our memory develop the rest of our brain function as well; our ability to learn new skills, assimilate new information, and to make better decisions can all be improved with effort.

There are several crucial factors that result in excellent memory, here are the major ones...

Excellent Blood Flow is essential for optimal memory. Much of what we know to be “senile dementia”, or forgetfulness due to aging, is do to tiny obstructions in blood flow. In fact, we now know that even in people over 50 with “normal” memory, nearly half have “silent brain infarcts”. These are small areas of the brain that have actually died due to obstruction of blood flow in tiny blood vessels. There are several simple strategies that can improve blood flow in the brain, here are some of the best:

Exercise: Cardiovascular exercise creates a demand for more oxygen rich blood in your body. Your heart rate increases, as does your blood pressure. When you exercise on a regular basis, you keep your blood vessels, heart, and lungs in prime condition. To learn more about how to include cardiovascular exercise in your life read my Cardio 101 article. Strength Training has been the center of much research on improving brain function.

In particular, high-intensity weightlifting has proven very effective for improving your brain. The increase in blood pressure associated with vigorous lifting in conjunction with the demand for blood is attributed for these beneficial effects.....

Just as in the womb, the demand you place upon your brain today creates the brain that you will function with tomorrow. Challenging activities will cause you to create new networks within your brain, and to use more of your brain. To the contrary, activities that are mentally passive, such as television, do not place a demand on your brain, and as a result its powers weaken. Following are some of the best activities for to challenge and stimulate your brain:

XXXXX * Ping Pong. This game is not only fun, it is excellent for your brain! The game demands planning, speed, and coordination. The spirit of competition and desire to perform better adds to the demand this game places on your brain.

* Play a musical instrument. Playing music demands creativity, coordination, mathematics (if you're dealing with music theory), new language skills (if reading

music), and coordination between several parts of your body—piano demands both hands and a foot working in different ways, flute demands both hands and the breath, etc.

- Chess and word games such as scrabble, suduko, and crossword puzzles all demand planning and mental reaching. While these are excellent mental exercises, be certain games and puzzles of this type are not your only mental exercise—you'll want to include other mental exercises such as those described above that demand physical coordination also.....

The Healthy Brain Checklist

* 20-30 minutes of vigorous activity on most days of the week.

* Eat a healthy diet as described in The Cholesterol Article

* Use your will power daily; learn a musical instrument, play ping-pong, or start a new project that demands you to learn new things.

- Practice some form of stress reduction—this not only makes you feel better, it creates positive changes in stress hormones. These hormones can increase the rate of oxidation of your brain (that's bad), and activities like meditation reverse this and may actually heal damage.

XXXXX "Imagine the complexity of chess at speeds of up to 100 miles an hour. This is table tennis—also known as ping pong—a game in which strategic decisions are made with split-second timing."

McCleary: Ketone Bodies Produced By A Low-Carb Diet Are High-Octane Brain Food "For this reason we need to continually be stimulating our brains in novel ways. This means reading books, solving problems, social interactions, doing puzzles, and even exercising. Aerobic activities, weight training and balance and coordination drills such as ping-pong, jump rope and trampoline activity activate different brain regions and keep us mentally young."

Dr. Oz: Ping Pong Prevents & Improves Alzheimer's Disease

XYX Dr. Oz, along with three helpers (Tina, Barbara and Deb), demonstrated the fabulous game of ping pong. In addition to being very fun, did you know that ping pong can help prevent and even improve alzheimer's disease?

As the ping pong ball bounces back and forth, you need good hand eye coordination, and the rapid eye movements plus the analysis and constant calculation that your brain has to do to predict where the ball will be, keeps your brain young and improves both motor and

cognitive functions! Plus, like Dr. Oz said, when was the last time you had so much fun with a paddle?

Pingpong, of all things, has fitness benefits

By Hilary E. MacGregor and Rosie Mestel

Los Angeles Times

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Excitement is reason enough to bat a small, hollow ball back and forth for an hour. But if that doesn't tempt, consider this: Participants in pingpong glean tangible health benefits. They may even lengthen their lives.

Pingpong burns calories -- 272 of them an hour for a 150-pound person, according to calorimetric analysis. This is not as many as singles tennis (544) or even doubles tennis (408), but a cool 102 more than would be burned by playing billiards for the same amount of time.

In fact, batting the ball about the table with friends on a regular basis may offer a nice mix of mental, physical and social benefits, says Dr. Gary Small, director of the Center on Aging at the University of California, Los Angeles.
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For starters, pingpong provides a deft mental workout ... truly. Such mental stimulation can affect how the brain is wired -- perhaps even warding off cognitive decline in future years.

Exercise tends to help the front part of the brain, especially if one is solving complex problems, such as mapping out sophisticated strategies for winning a pitched game of pingpong.

Pick up the paddle and your brain could change quickly. In exercise studies, Small notes, beneficial brain changes are visible with high-tech imaging after only a few weeks.

And there's more. The balance training of paddle games such as tennis or pingpong can help prevent falls, which are common among the elderly.

It helps forge social connections -- which increase the chance of living to a ripe old age.

"Unless you are playing pingpong against a wall, it is tremendous to have connection, have fun, and be socially involved with other people," Small said.

Of course, what you get out of pingpong depends on what you put into it, says Dr. Frank Chen of the Palo Alto Medical Foundation's sports department, who's also on the medical staff of the Oakland Raiders and USA National Rugby.

If you're just banging the ball around in the basement with some buddies, don't expect to drop pounds or gain stamina.

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But if you are playing really competitive table tennis, that's different. Concentrated, quick, high-octane play at that level can offer a cardiovascular and aerobic workout, and build strength in the body's fast-twitch muscle fibers.

"You are really working both types of muscle fibers (fast and slow) within the body," says Chen, an avid pingpong player.

"Pingpong also works very well in terms of building eye-hand coordination," Chen adds. "It helps build your reflexes because you do need to stay focused at that very high level. You are using your arms, legs and shoulders, basically enhancing speed and strength in all those areas."

All this, and perhaps, no tennis elbow.

How Playing Ping-Pong With Your Opposite Hand Can Improve Your Table Tennis Game

Your Right Can Be Left Out Occasionally

By Greg Letts, About.com Guide

I think most table tennis players have played a game or two with their opposite hand for fun now and then. But would you believe that for many beginning to intermediate players, using your non-dominant hand can actually improve your table tennis? Skeptical? Then read on.

While I would not suggest spending hours and hours trying to hone your opposite handed technique, I do believe that there are a number of benefits you can get from swapping hands from time to time, including:

* For intermediate players trying to adjust your grip or basic technique, it's often difficult to successfully make the change simply because your muscle memory keeps telling you that the new way is wrong. Using your other hand to correctly hold the bat or play a stroke takes your muscle memory out of the picture, and lets you focus on whether the change actually works better than your old grip or technique. Of course, you probably aren't going to be relooping or performing other advanced techniques, but for grip changes and basic strokes using your opposite hand can be very useful.

* Using your other hand also makes you focus on the doing the basics correctly much more, since you aren't able to compensate for bad technique with your usual bag of tricks. For example, as a right hander you might normally get away with hitting your forehand

loop with your right foot in front of the left, since you open your shoulders and bend your elbow and wrist to compensate for your poor stance. You'll struggle to get away with that if you swap hands, and it will become very apparent why it's easier to hit the ball if you put your feet the right way around. That will give you extra incentive to correct your stance on your normal forehand loop.

* You also get a different perspective of the table. For right handers, it's interesting to see how the table looks from a left handers point of view (and vice versa for lefties). If you are a right hander, try playing another right hander with your left hand, and notice the different angles of play, and how certain patterns used automatically by your opponent actually feed into your forehand and backhand strengths, if he isn't careful. It will give you more insight and a better understanding of where to put the ball the next time you come up against a lefty yourself.

* If you are a much stronger player than your training partner or opponent, playing with your opposite hand can really level the playing field. If you are like most players, you'll have the ability to use only a very basic serve, and simple pushing and counterhitting. Your loop will probably be quite erratic. This can really force you to put an emphasis on winning via the use of better tactics - since all your usual weapons have been taken away, you have to really think hard in order to win with the limited array of weaker strokes you now possess. This can quickly let you know whether you normally go out and play brainless table tennis, relying only on your better strokes to win matches.

* During a match, it can be handy to switch hands and keep hitting forehands from your normal backhand side at your opponent - the late Andrzej Grubba from Poland was a master at this! It's actually very offputting when your opponent does this - as I can attest from personal experience thanks to Craig Campbell!

* If you are a coach, it can be very useful to use your other hand occasionally. After many years in the sport, you tend to forget what it was like when you first picked up a ping-pong paddle. That feeling of awkwardness and uncoordination is just like what a beginner feels. It certainly helped me keep my patience when any of my students was struggling to learn a new technique!

* And finally - it's fun! Being able to take a break from serious play and play some ping-pong just for the heck of it, without any pressure or expectations, can be a refreshing experience. When you miss a loop or two with your normal hand, you often get frustrated and irritated, but when you do it with your other hand, it's just a good laugh!

The World's Best Game

I have inquired into health benefits of table tennis. I know personally that I came into much better shape when playing (and only playing) table tennis three times per week.

Of course, I do not mean basement ping pong with your paddle in one hand and a beer in the other; but table tennis training.

I have been to many recreation centres and clubs and noticed a great amount of seniors playing the game as well who were all in great health and playing with excellent energy.

As well as having proper fitness for the body, Dr. Daniel Amen, a child and adult psychiatrist, brain imaging specialist and award winning writer for his research, says that regular exercise boosts hormones that keep your brain young.

xxx And, there are studies that show that exercise increases the circulation to the brain that promotes cell health. This makes table tennis is one of the top sports to play.

So what is the table tennis foil? Is it health benefits?

We all know how much people love pain and aggression and fighting and deaths and all that good stuff. And unfortunately, table tennis is in the baby pool in comparison.

What people don't realize is that when table tennis is played properly, it is one of the more physically demanding sports. The stamina, strength, and agility needed in order to maintain ten minutes of training is astounding. It's a full body workout, like an aerobics class.

In a recent study, Dr. Amen argues in his book, "Making a Good Brain Great," that playing table tennis can increase brain activity.

Amen calls table tennis the best brain sport. It improves hand-eye coordination, is aerobic, uses both the upper and lower body, and causes you to use many different areas of the brain to function.

In an article entitled, "Stupidity and the brain," (2004), Dr. Amen says, "Golf is good. Tennis is terrific. Table tennis is the best sport in the world!" while referring to the similarities between a severe car accident and a hard hit in football in relations to the impact on the brain.

xxx So if you're a child, adult, or senior, looking for something fun and extremely healthy for your body and brain, take up table tennis.