

Julia Lundstrom:

Welcome to your Memory Mastery series class number three. Again, I'm Julia Lundstrom, and I'm so grateful to have you here today. In the first class, we learned three techniques that can help you remember something on the spot when you really need it the most. The one that works best for me personally is moving my eyes back and forth for the 30 seconds. But the trick I learned, is not thinking about what you want to remember for the time that you're moving your eyes back and forth, but try to remember right when you stop moving your eyes, and think about it. And I remember just like that.

Julia Lundstrom:

Then in that same class, we learned how to associate images to memories to help us remember better like picturing your headlights as two strawberry cakes to remind yourself you're parked on level strawberry aisle two in the mall parking garage. We talked about how simply being prepared will help you to eliminate those daily memory lapses like where you left your car keys. In memory master class number two, you learned how to activate and rejuvenate stem cell growth to build your memory and fight off disease today and long into your golden years. Has anyone planned their five-day fast mimicking food diet yet? In case you missed either of classes one or two or you simply want to watch them again or share them with loved ones, you'll find the links to those videos above now.

Julia Lundstrom:

And now, today, we start on Memory Master Class number three. What if I were to tell you that there was a protein in your brain that has miracle-grow like properties for your memory? What if I were to tell you that stimulating growth of this protein in your brain has been shown in thousands of studies to help with everything from depression, anxiety, learning, aging slower mental illness, traumatic brain injury, cognitive function?

Julia Lundstrom:

In a 2007 study on people, German researchers found that people learn vocabulary words 20% slower when compared to people that increase their levels of this protein right before learning. What if I told you that as you get older, you make less and less of this protein, but that you can easily generate more of it within a matter of minutes? What is this miracle protein that does all this? Oh, let's come back to that. I'm just totally kidding. I wouldn't do that to you. It's called Brain-Derived Neurotropic Factor or BDNF. It essentially fertilizes the brain cells to keep them functioning and growing, as well as propelling the growth of new neurons.

Julia Lundstrom:

BDNF builds the buildings, the sidewalks, the roads, and the freeways in your brain. It also maintains these same ecosystems after they've been built. It improves the function of the neurons and encourages their growth, and it strengthens them and protects them to live longer and stronger. The more BDNF you have in your brain, the better your brain works. You can give your car regular gas, but you won't see Formula one cars getting 87, 89, or even 93 octane levels of gas. They get high octane fuel. BDNF is the high octane fuel your brain needs, and the more it gets, the better it performs. It is the key to your memory.

Julia Lundstrom:

BDNF is involved in the formation of different types of memories and it's critical for maintaining long-lasting storage for information in the hippocampus, the amygdala and the insular cortex many hours after learning occurs. BDNF may also be relevant to counteract the natural process of memory decay, which is typical in aging and is exasperated by some neurodegenerative disorders. It helps neurons survive. It's critical for memory recall, learning, longterm memory, short term memory, and extinction, and it may even be key to breaking down or preventing Alzheimer's.

Julia Lundstrom:

Researchers at Rush University Medical Center in Chicago studied that cognitive function of 535 older men and women, some who actually had Alzheimer's and some who didn't, for an average of six years. And when they died, they autopsied their brains, and the results were fantastic. The amount of BDNF proteins in their brains was directly related to the documented rate of decline that those men and women experienced in the years before they died. They found that study participants with the most BDNF protein, the top 10%, in their brains had 50% slower cognitive decline than those with the least, the lowest 10%. Even among those with Alzheimer's disease, higher levels of BDNF were associated with less severe cognitive effects.

Julia Lundstrom:

Let's look at what else BDNF affects. Researchers found that people with depression have low levels of BDNF. In a post-mortem study of people who have committed suicide and had depression, they also found significantly decreased levels of BDNF. It may not be the cause of depression, but it certainly is a factor.

Julia Lundstrom:

And then if you look at anxiety, well, the National Institute of Mental Health labels anxiety a learning deficit, because the brain is unable to learn to discriminate between dangerous situations and benign situations. Scientists believe that BDNF is an essential ingredient in combating anxiety. They think that it helps the brain learn to work around the fear and create positive memories. Which leads us to talking about BDNF and learning. It seems that we learn slower as we get older, and that may be due to lower levels of this critical protein. We all joke that our kids or even our grandkids can use our cell phones better and faster than we can. There are even commercials now around the first thing grandparents do when they go to babysit is hand the kids their phones to help them with it.

Julia Lundstrom:

BDNF is a mechanism for the brain to learn. It gives the brain the tools it needs to absorb information, process it, remember it, and put it into context, into the big picture. And to make matters even worse, it's estimated that one in three people have a genetic mutation that makes BDNF levels fall much faster than average. It really is the brain's miracle fuel. So obviously the next question I get is, can I get more BDNF? And the resounding answer, thankfully, is yes, and pretty darn easy too.

Julia Lundstrom:

So let's go through some ways to boost your BDNF now in this moment, and then ways to build it for the longterm. First, if you're sitting down, I want you to stand up if you're able. I want you to quickly jump up and down 10 times. If you're in a wheelchair chair or you simply can't jump, I want you to stay seated and bend to touch your toes 10 times fast. Are you ready? One, two, three, four, five, six, seven, eight, nine, 10. There, you just increased your BDNF. One of the best ways to increase BDNF in the moment is

to exercise. Short, intense exercise is showing to be best, but you got to do whatever you can to your ability level. This goes back to the first semester class I'm trying to remember something in the moment, and doing 10 jumping jacks. That bolsters your BDNF and helps you remember. A single bout of exercise increases the hippocampal BDNF.

Julia Lundstrom:

However, exercise is only a short term solution, but not that short term. After stopping exercise, Carl Cotman, a neurologist at UC Irvine, found that increases of BDNF lasted a full two weeks, and that increases in brain function were just as good for older patients as well as younger ones. So what besides exercise increases BDNF levels? How about learning something new like you're doing right now? Learning something new also gives a quick boost to your BDNF levels in the hippocampus itself, which is your memory center. The most fun way to boost your BDNF is to eat dark chocolate. I recommend 72% to 86% dark chocolate. It's the antioxidants that activate the BDNF pathway. Other foods with the same antioxidants which are called polyphenols, can do the same thing. Green tea, blueberries, and colorful veggies. So why not just double up and to be safe and have your dark chocolate with your green tea? Fasting, which we talked about in your Memory Mastery Class number two is another great way to boost your BDNF and the effects last much longer.

Julia Lundstrom:

Now we have to look at some of the long-term strategies. Some of the longer term strategies are around getting better quality or less disruptive and more sleep as well as getting more social. This is critical. Actually, this social component is one I want to gloss over. A Harvard study that spanned 80 years found the greatest predictor of happiness, health and longevity was embracing community and having good relationships. In fact, social was three times as important as the next one down, which was nutrition. There are also nutrients and supplements that have been shown to increase BDNF.

Julia Lundstrom:

Proudly, I can say that all three main ingredients in our Mind Boost Day, Rhodiola Rosea, Bacopa Monnieri, and Ginkgo Biloba have clinical studies showing their restorative properties of BDNF. There's a link to that below to the studies on our website if you want to learn a little bit more. Omega-3 fatty acids and specifically the DHA component of Omega-3s have been shown to increase BDNF longterm as well. And some animal studies have shown that zinc and magnesium have also increased BDNF. They just haven't done that human studies on that yet. Natural sunlight for 15 minutes a day is another fantastic way to increase BDNF.

Julia Lundstrom:

Let's go through some BDNF depressants now. What can actually lower your BDNF levels? Those of you that are following my Nine Pillars of Brain Health now for a while won't be surprised at all to learn these. One is stress. When they straight say stress kills, it really does. There is no excuse for living a stressed out life. Do whatever it takes to simplify your life. Just let it go. Sugar. In my 30-day Boosts Your Memory coaching program, I go into specifics with sugar and the specific types of sugar that are the worst for your brain health. But for just this lesson, know that sugary processed foods are memory destroying culprits. As they say, stay on the outside edges of the grocery store and stay away from the middle. Social isolation. Yes, this is what I said before, but it's worth repeating. Do not be a hermit. Get out there and be social.

Julia Lundstrom:

That was a lot of information. Let's do a quick review. More BDNF, good. Less BDNF, bad, potentially, very bad. To increase your BDNF in the moment, you want to exercise. Learn something new. Eat dark chocolate, which of course is my favorite. For the longer term, you want to get longer, better quality sleep. Fast. You want to get more sunshine. You want to be more social. You want to get the nutrients proven to boost BDNF. You want to reduce your stress. You want to reduce your sugar intake. I hope that sums it up for you nicely.

Julia Lundstrom:

At this point, I'd like to ask that you go take the Cambridge University brain test again. Remember the one you took with the first master class? Pause the video now, click on the link, and go do that one again, and write down your score, and come back.

Julia Lundstrom:

Great. You're back. You see, you just spent three lessons with me, and if you haven't implemented a single recommendation, the pure fact that you're learning something new this week should have increased your BDNF levels, and therefore, should have increased your score. Heck, I encourage you to even play around with the score. Take the test, do 10 jumping jacks, eat some chocolate, and take it again, and then share below in the Facebook comments what's working for you so that you can help others who may be a little bit hesitant to try some of these things. I'm going to go right now and do just that. Okay, now I'm going to do 10 jumping jacks, eat dark chocolate, and take it again. I'm going to cut out right now and I'll be right back with my results.

Julia Lundstrom:

Holy cow. It does work, just look at that. Now, you go try it and have fun with it. It's not a serious test, but you are contributing to science when you take the test. I'll see you in your Memory Mastery series class number four in just a couple of days. Thank you.