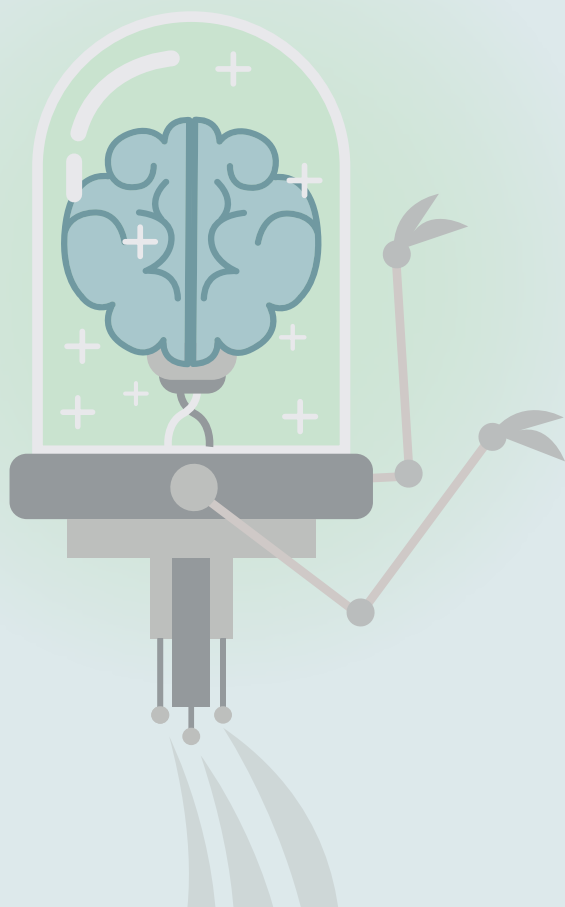


YOU SHOULD HAVE  
**BRAIN ENVY**



AN EXPERT INTERVIEW WITH DR. DANIEL AMEN

**WELCOA**★  
WELLNESS WORKS HERE

# YOU SHOULD HAVE BRAIN ENVY

*with*

DR. DANIEL AMEN

## ABOUT DANIEL AMEN, MD



The Washington Post called Dr. Amen “America’s most popular psychiatrist” and Sharecare named him “the web’s #1 most influential expert and advocate on mental health.” Dr. Amen is a psychiatrist, researcher, and New York Times bestselling author. He founded Amen Clinics in 1989, which now has 6 locations across the U.S.

Dr. Amen is the lead researcher on the world’s largest brain imaging and rehabilitation study on professional football players. In January 2016, his team’s research on distinguishing PTSD from TBI was featured as one of the top 100 stories in science by Discover Magazine. Dr. Amen is also one of the chief architects of “The Daniel Plan,” a program to get the world healthy through religious organizations and has been done in thousands of churches.

Dr. Amen is the author of 10 New York Times bestselling books, including *Change Your Brain, Change Your Life* and *Healing ADD*. In November, Dr. and Mrs. Amen will release two new books *The Brain Warrior’s Way* and *The Brain Warrior’s Way Cookbook*. Dr. Amen has hosted 11 national public television program about brain health. In December his latest show, *BrainFit: 50 Ways to Grow Your Brain*, will debut across North America.

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## ABOUT RYAN PICARELLA, MS, SPHR



As President of WELCOA, Ryan works with communities and organizations around the country to ignite social movements that will improve the lives of all working people in America and around the world. With a deep interest in culture and sociology, Ryan approaches initiatives from a holistic perspective that recognizes the many paths to well-being that must be in alignment for long-term healthy lifestyle behavior change. Ryan brings immense knowledge and insight to WELCOA from his background in psychology and a career that spans human resources, organizational development and wellness program and product design. Prior to joining WELCOA, Ryan managed the award winning BlueCross BlueShield of Tennessee (BCBST) Well@Work employee wellness program, a 2012 C. Everett Koop honorable mention awardee. Since relocating to Nebraska, Ryan has enjoyed an active role in the community, currently serving on the Board for the Gretchen Swanson Center for Nutrition in Omaha. Ryan has a Master of Science in Industrial and Organizational Psychology from the University of Tennessee at Chattanooga and a Bachelor of Science in Psychology from Northern Arizona University.

Dr. Amen will tell you, “If you really want to elevate your performance, the first thing to do is start caring about your brain.” And there’s more to it than that. The three pounds of fat in our heads does a lot to determine our health. In this brand new interview, learn more about how mind and body are inseparable when it comes to well-being, and get strategies taking good care of both.

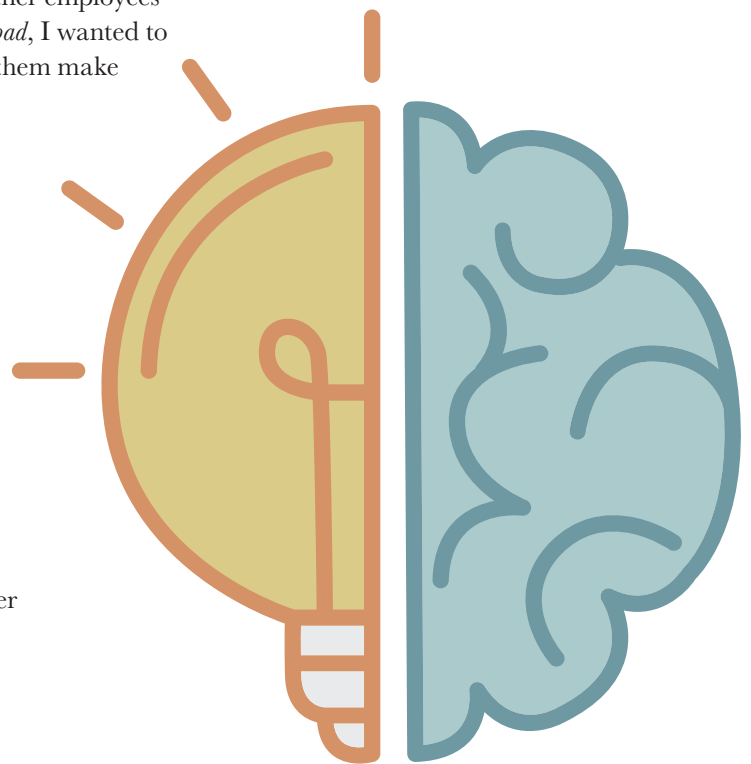
★ **RYAN PICARELLA** Dr. Amen, what set you on the path to discovering more about how the brain works. What sparked your interest to grow into the authority you are today?

**DR. AMEN** I grew up in Southern California where my father owned a chain of grocery stores and later became the Chairman of the Board of Unified Grocers, one of the largest grocery wholesalers in the Western United States and a 4-billion-dollar company. I have been around business my whole life.

After I became interested in the brain during medical school, I became very curious how its moment-by-moment function could affect business. I remembered that one of my father’s grocery managers was having an inappropriate affair with a checker; another supervisor had an explosive temper, and other employees could never be on time. While most people judge these workers as *bad*, I wanted to understand *why* they were the way they were, and if we could help them make better decisions.

When I started looking at people like them through the lens of our brain imaging work, I thought, *I wonder if they might have had a brain injury. Could this person have untreated ADD? Could that person be bipolar?* I came to realize that the brain obviously is involved in everything you do and every decision you make in your personal life, but I became particularly interested in how brain health applies to work as I watched my dad as an owner/manager/supervisor and the issues he had to deal with and realized that many could be brain issues disrupting the workplace that could be improved. Also at work, if I could help optimize your brain, you are a better CEO, you are a better manager, you are better employees, you make better decisions, and ultimately your business is better and more profitable, and your employees are healthier, likely to do better work and stay with you longer.

“...if I could help optimize your brain, you are a better CEO, you are a better manager, you are better employees, you make better decisions, and ultimately your business is better and more profitable, and your employees are healthier, likely to do better work and stay with you longer.”



★ **RP** What impact does brain health have on our physical health? Can you put one before the other?

**DR. AMEN** In my book *Change Your Brain, Change Your Body* I make the argument that the three pounds of fat between your ears, in large part, determines your physical health. Your physical health is most likely a sum of all of the decisions you've made in your life, including how much you sleep, what you eat, and how much you weigh. Your health habits are a series of decisions your brain makes every day, and when your brain works right you work right. When your brain is troubled, for whatever reason, people are sadder, sicker and poorer because their decisions are not good. They are less successful in everything they do. In all of the success books that I've ever read, very few people ever talk about the physical health of your brain. But in my mind that is the foundation of success in relationships, at work, with yourself, because it is all about the decisions your brain makes.

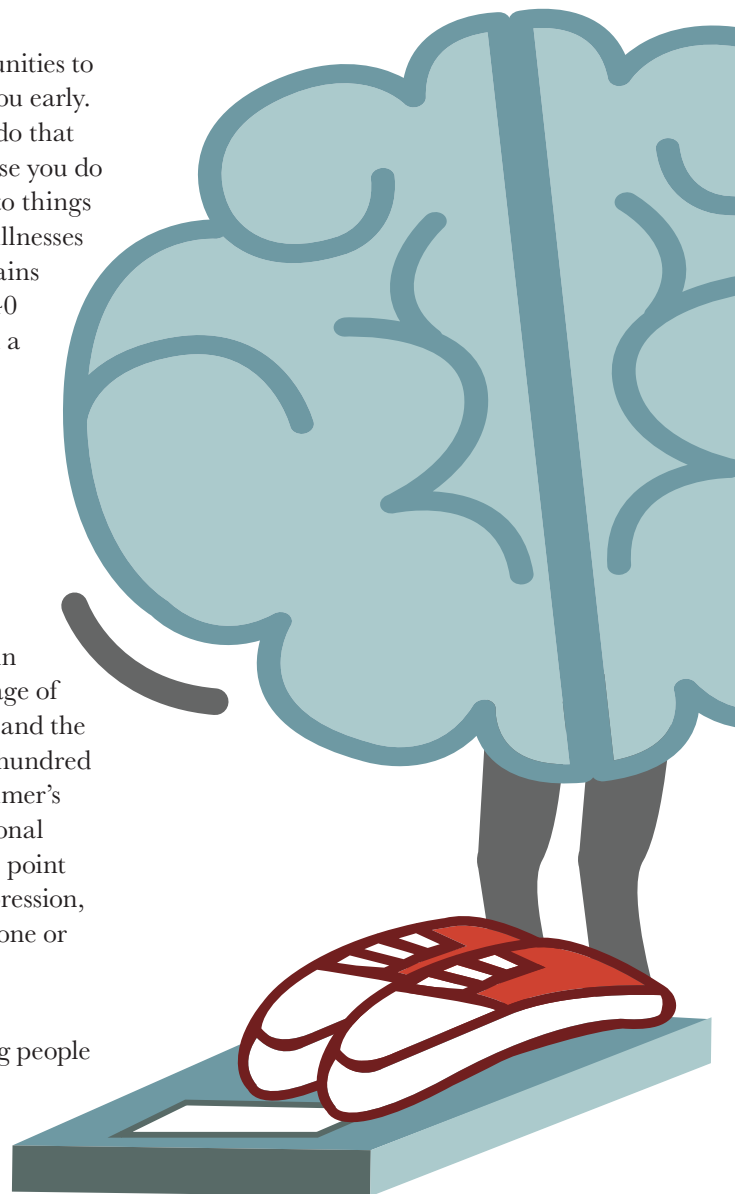
Think about walking through a grocery store. There are so many opportunities to make bad decisions, and a lot of things they're trying to sell you will kill you early. So your brain has to constantly say, "No thank you." But if it is unable to do that because you had a brain injury, because you did not get good sleep, because you do not know how to say *no*, you end up making those bad decisions that lead to things like diabetes, obesity, hypertension and heart disease. People see them as illnesses that happen to them rather than as consequences of the decisions their brains make every day. With two thirds of us overweight in this country, nearly 40 percent of us now obese, we have to attack from our health problems from a brain health perspective to be truly effective.

★ **RP** Are we seeing brain health issues rising at the same rate as some of the chronic diseases you just mentioned?

**DR. AMEN** It is frightening. In fact, there was an article just today in the paper where they looked at the countries that had the highest percentage of people who are anxious and depressed. India was first, China was second and the United States was third. It is skyrocketing. Depression has increased four hundred percent since 1987, ADHD has tripled since the early nineties, and Alzheimer's disease is expected to triple in the coming decades. According to the National Institute of Mental Health, fifty-one percent of the US population at some point in their life will have a mental illness. Anxiety disorders are first, then depression, ADHD and addiction. Almost everybody has been affected or loves someone or supervises someone who is affected.

So knowing about the brain—and what I get really excited about—getting people to fall in love with their brains and then to do the right things for them is paramount to success. Your focus, energy, mood, memory, sleep, and decision making will be better.

"With two thirds of us overweight in this country, nearly 40 percent of us now obese, we have to attack our health problems from a brain health perspective to be truly effective."



With fifty-one percent of the US population struggling with brain health issues at some point in their lives, it is more normal to have problem at some point in your life than not to have a problem. I tell my patients that normal is really nothing more than a setting on a dryer or a city in Illinois. If you have struggled with ADD, anxiety, depression or addiction, welcome to normal! Just be smart enough to get help for it.

★ **R P** What do you think is the leading driver of declining brain health at the global level? Is it our environment? Diets? Inactivity?

**DR. AMEN** I think the most important factor is nobody loves their brain. The reason you do not love your brain is that you cannot see it. You can see the wrinkles in your face or the fat around your belly, and you can do something when you are unhappy with it. But because by and large we do not look at our brains on a regular basis or even do baseline cognitive testing to see how they are performing; no one has that knowledge. When I started doing the brain imaging work we do at Amen Clinics in 1991, I was a double board certified psychiatrist and, quite frankly, did not care at all about my brain. I was only sleeping four hours a night because I thought I was special. I was overweight. I was not eating right. I was chronically stressed, and I just did not care.

Then, when I started looking at brains, I scanned my mom's brain and her brain was just stunningly beautiful. I looked at mine and it was not beautiful, and I got what I call *brain envy*. I started to really care about it and then I started to get really serious about optimizing my brain. But people care more about the fat on their belly than the three pounds of fat between their ears. Just think about all the kids playing tackle football, even as little ones, or hitting soccer balls with their heads, and nobody is really thinking until recently that this might not be a good thing. My goal is to get people to know that their brains run everything they do, and they need to love, care and protect them.

★ **R P** What is *brain envy*, and how does one fall in love with their brain and begin thinking differently about taking care of it?

**DR. AMEN** This is the one secret to success. If you really want to elevate your performance, the first thing to do is start caring about your brain. So I said, my mom had this beautiful brain and I did not. She was 60, I was 37 at this time, and I wanted a better brain. I mean, desperately. I coined the term *brain envy* to reflect the passion I had for the subject. If you care about your brain you start doing things that are better for it. I love teaching people to fall in love with their brains.

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It is your brain that gets you a date, and you get to keep the girl or the guy because you do not act like an idiot. It is your brain that gets you into the college of your choice, because you consistently make good decisions. It is your brain that gets you trust from your parents so you will have more freedom because you made good decisions. It is your brain that gets you a job. It is your brain that allows you to save money and make money. It is your brain that gives you meaning and purpose. The health of your brain is directly related to your effectiveness in life and your level of happiness. When you plant that idea in people's heads, they wear their seatbelts. They do not do dangerous things with their body because they realize brain is soft, skull is hard, and the more they learn about and love their brain, everything in their life is better.

★ **RP** So how do you begin to change your brain?

**DR. AMEN** The first thing is you get the intellectual knowledge. The second thing is you care. The third is you know what you want. We have an important exercise called the One Page Miracle. On one piece of paper we ask that people write out what they want in their life in a balanced way: relationships, money, work, physical, emotional, spiritual, health. We have them really think through what they want. Then we ask, "So how much is your brain involved in all of this?" Then quickly they realize it is involved in absolutely everything they do.

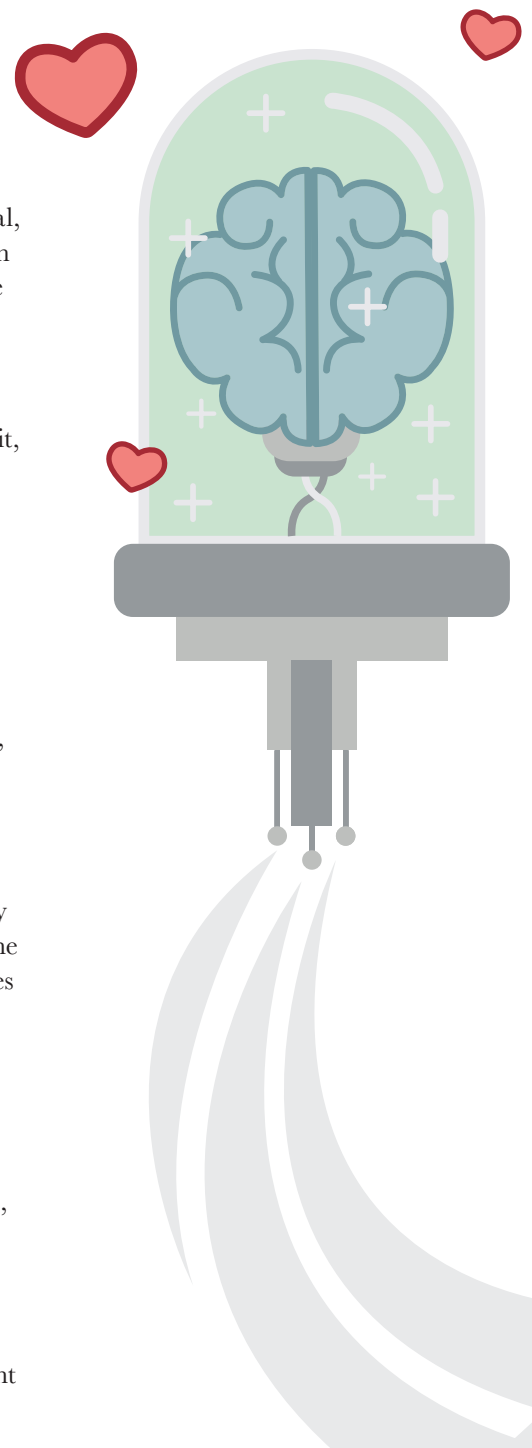
I have thought about this for very long time, and brain health is not hard. It is three simple concepts: Brain envy (you have got to care about it), avoid anything that hurts it, do things that help it.

★ **RP** What should people know about avoiding things that are harmful to our brains and doing things that are helpful?

**DR. AMEN** Some of the things that hurt the brain surprise people. For example, sleep apnea, which is very common in the United States because of our obesity problem, triples the risk of Alzheimer's disease. Chronic stress also hurts the brain, especially if you have a low DHEA level. DHEA is a hormone made by adrenal glands. If it is low, and you are under chronic stress, the memory centers of the brain shrink and you are not nearly as sharp as you could be. The Standard American Diet (SAD) is damaging to our brains. It is associated with ADHD, depression and Alzheimer's disease. So really rethinking what you put in your body is critical. Most people do not know the brain is the most oxygen hungry organ in the body. It is two percent of your body's weight, but it uses twenty percent of the oxygen. So if you are breathing anything poisonous like pollution, or painting your car in a closed garage, or you're at job where you breathe toxic, all of those things can be harmful to the brain. Avoid anything that hurts your brain and people need to learn those things.

Likewise, it is critical to know how to help your brain function at its best. For example, sleep, breathing clean air, drinking clean water, exercise, and the right diet are pillars of brain health. When it comes to nutrition, it is not hard. Think of a plate. Seventy percent should be plant-based foods raised without pesticides. Things that kill bugs tend to kill the bugs in our gut as well, and there is a huge gut/brain connection. So about seventy percent of our diets should be plant-based foods and about thirty percent

"...brain health is not hard. It is three simple concepts: Brain envy (you have got to care about it), avoid anything that hurts it, do things that help it."



high-quality protein with healthy fat mixed in. Low fat diets are not good for the brain, since it is sixty percent fat. A recent headline in the news horrified me. It reported that the sugar industry actually paid scientists to promote the fat theory for heart disease and bury evidence that sugar was the problem more than fat. Public policy actually changed because of those articles and our society demonized fat and gave sugar a free pass. Now we know it is the opposite. I believe this ultimately was a major factor that contributed to our obesity and diabetes epidemic.

Your diet matters. When you eat in a brain healthy way the symptoms of ADHD and depression are better and decrease your risk for Alzheimer's disease. How exciting is that! There are just so many simple things you can do to have a better brain. The stronger you are as you age, the less likely you are to get Alzheimer's disease. I think men and women should be in the gym lifting weights. It is often frailty that kills people. Coordination exercises like tennis or table tennis are helpful for decision-making skills because they work a part of the brain called the cerebellum that ultimately connects with your frontal lobes and helps you think better.

★ **R P** WELCOA's *On the Move* Initiative takes the approach that when we move our bodies, we move our mental and emotional health as well. The things you are talking about are the same things we know are good for our physical health: eating well, staying hydrated, activity. Are there other types of things that we do on a daily basis that are probably not helping us optimize our brain for peak performance?

**DR. AMEN** So many things. A big one is sleep. Sixty million Americans are not getting more than six hours of sleep at night, and I really want people to target somewhere between seven and nine hours. Because when you sleep your brain cleans and washes itself. I mean, it is really like getting it ready for the next day just like the cleaning crew at the office. Another is smoking. It is still the number one preventable cause of death in the United States. Five hundred thousand people die every year. Smoking is a nightmare for brain function. As it wrinkles your skin it also constricts blood flow and decreases activity to the brain. Also, we have to stop thinking of alcohol as a health food. It actually is known to increase the risk for different kinds of cancer and it is not good for your brain. If you have one or two glasses a week it is not a big deal. But if you have one or two glasses a day it is a big deal. There is a study from Johns Hopkins that found that people who drink every day have a smaller brain, and when it comes to your brain, size matters. In general, you really want to be careful what you put in your body.

The other thing that most people are not aware of is that the quality of your thoughts moment-by-moment impacts the functioning in your brain. If you focus

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on what you hate about your life, on what you are afraid about in your life, it actually drops the function in your cerebellum—the coordination center of your brain. So you are less coordinated and more likely to fall. It also drops the function in your hippocampus, which is a major memory structure in the brain. There is a really cool study, the longest longevity study ever done, at Stanford where they looked at 1,548 ten-year-old children and then they followed them for ninety years. The findings fooled people, because the *don't-worry-be-happy* people died the earliest from accidents and preventable illnesses. The number one predictor of longevity was *conscientiousness*. If they consistently said they were going to show up and they showed up, they lived longer than everyone else. Conscientiousness is a function of the front third of our brains that are involved with things like focus, forethought, judgment, impulse control.

★ **RP** If someone wants to go one step further in brain conditioning, what are your recommendations beyond healthier lifestyles that you think are important based on your research?

**DR. AMEN** I am a huge fan of omega-3 fatty acids. We studied the omega-3 levels of fifty consecutive patients who came to Amen Clinic who were not taking fish oil supplements. Forty-nine of them were low, because our diet is now much more deficient than it has been in the past with omega-3s. There is way to test that; you can have your doctor test it. But I recommend omega-3 fatty acids for all of my patients. I will also recommend a really good multiple vitamin. A lot of doctors tell you that you do not need vitamins or fish oil; you will just urinate it out. That is not true. Now if you had a pristine diet and only drank pure water and breathed clean air and you were never stressed and you always slept perfectly, then I do not think you need supplements. But because most people do not, I think of a multiple vitamin and fish oil as a way to just fill the gap between what you need and what most people get.

“You need to know what your BMI (body mass index) is, because as your weight goes up, the actual physical size and function of the brain goes down, and that is published now in dozens of studies.”

The other thing that I think is really important and talk a lot about in my work is you need to know your important numbers. You need to know what your BMI (body mass index), because as your weight goes up, the actual physical size and function of the brain goes down, and that is published now in dozens of studies. I published two of them. So that is why you do not want to be overweight. You do not want high blood pressure. As blood pressure goes up, blood flow to the brain goes down and ultimately your brain begins to atrophy or get smaller. So you need to know those numbers. Low vitamin D levels are associated with ADHD, depression and dementia. I had a low vitamin D level when I first tested it, and I live in Southern California when the sun is out 330 days a year. But I am never in the sun because I work during the day, and

“The other thing that most people are not aware of is that the quality of your thoughts moment-by-moment impacts the functioning in your brain. If you focus on what you hate about your life, on what you are afraid about in your life, it actually drops the function in your cerebellum.”



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simply taking an inexpensive supplement, my vitamin D now is high normal and I very rarely get sick because vitamin D also helps enhance your immune system.

You also want to know your C-reactive protein, a measure of inflammation. Inflammation is now thought to be a major cause of mental health problems. If your c-reactive protein is too high; you need to be on an anti-inflammatory diet. Omega-3's help decrease inflammation, as can supplements like curcumin. Other lab tests we think are really important include testosterone levels for men and women, because low levels are not only associated with a low libido, they are also associated with low motivation, low energy, depression and dementia. People should know their cholesterol level. But most people just think of it as *high cholesterol is bad*. From a mental health standpoint, we know that low cholesterol can also be bad, that there is a sweet range between 160 and 200. Below 160 is associated with depression, suicide, homicide and death from all costs. So knowing your important numbers is really important. Peter Drucker said, "You can't change what you don't measure." That is why we like testing brain function, but we also like testing your important health numbers because we know they are clearly related to brain health.

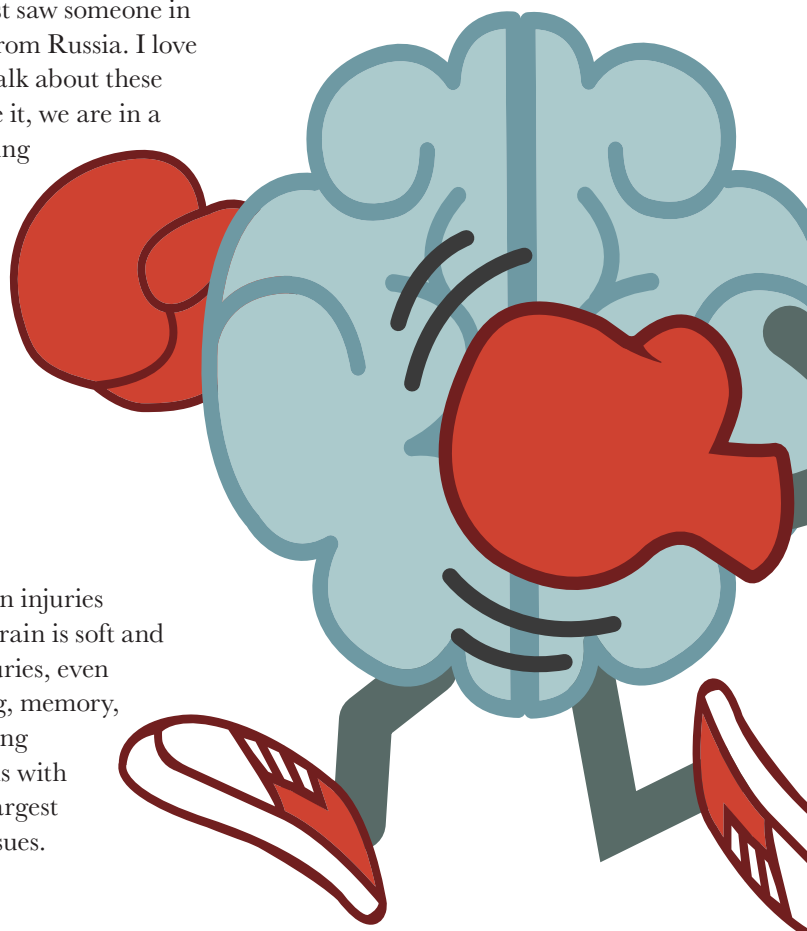
★ **RP** So you have been doing this research for a long time. How many brain scans have you completed as a part of this work?

**DR. AMEN** 125,000 scans on people from 111 countries. I just saw someone in our clinic yesterday from Monterrey, Mexico and the week before from Russia. I love that. You are right. We have been doing it a long time, and so as I talk about these things my passion for the work has escalated over the years. As I see it, we are in a war for the health of our brains. Everywhere you go someone is trying to shove bad food down your throat that will kill you early, or put toxic thoughts in your head if you watch the news too much, or if you get addicted to your gadgets that steal your attention. What I am hoping to do is help people be armed and prepared to win the fight of their life, and that is for their brain health.

★ **RP** What are the biggest lessons you have learned (that we haven't discussed) through all of your work at Amen Clinics?

**DR. AMEN** One of the big lessons is that mild traumatic brain injuries [concussions] ruin people's lives and nobody knows about it. Your brain is soft and your skull is hard, and your skull has sharp boney ridges. Brain injuries, even seemingly minor ones, can negatively impact relationships, learning, memory, decision-making and so on. I have become a huge advocate of helping protect people's brains. I was a consultant on the movie *Concussions* with Will Smith, and here at Amen Clinics we did the world's first and largest study of active and retired NFL players. So concussions are huge issues.

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One of the other big issues is we have learned that all psychiatric illnesses are not single or simple disorders; they all have multiple types. I have written books about seven types of ADD, seven types of anxiety and depression and six types of addictions. What is really interesting is that there are five types of overeaters. You are never going to solve the obesity epidemic by giving everybody the same plan because everyone does not have the same brain. So for example, there are overeaters that are impulsive so they cannot control their impulses. But there are also overeaters who are compulsive, and they just think about food all the time. One has low dopamine levels, the other has low serotonin levels. There are sad overeaters and anxious overeaters, and one really interesting type I call “impulsive-compulsive” overeaters. They have features of both, and they often are children or grandchildren of alcoholics. We need to raise both serotonin and dopamine, which we do through either behavioral exercises or supplements, maybe medication. It just makes a world of difference when you do not see all depressed or overweight or ADD people as the same, but you target treatment to their type.

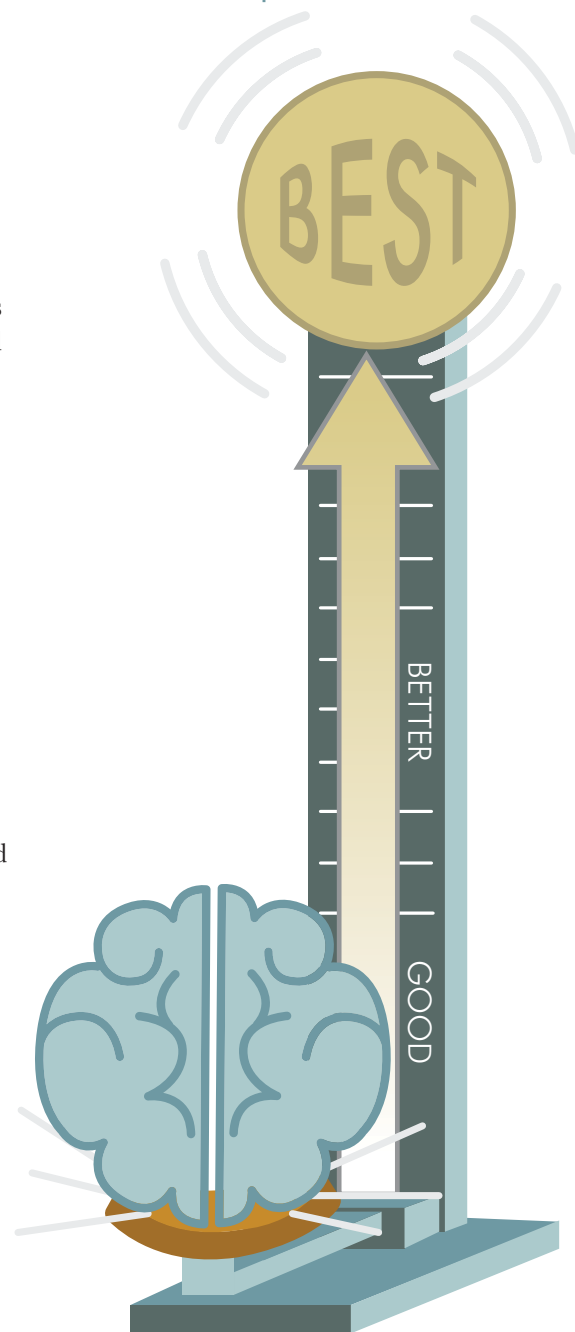
Then I think the last lesson we learned, the biggest lesson we learned ... the most exciting lesson we learned is that you are not stuck with the brain you have, you can make it better and I can prove it. I told you about my scan in 1991 when I was thirty-seven. Well, my brain at fifty-seven looked dramatically better, and I get really tickled about that. The big NFL study I did, yes playing football damages the brain. Stop lying about it and own it. It is true. But eighty percent of our players had high levels of improvement when they did the things we asked them to do. And that is exciting. Even if you have been bad to your brain, such as you drank too much, you have sleep apnea, or you are overweight, there is hope for you to have a better brain if you do the right things.

★ **RP** Do you think that the workplace, the office environment, is an ideal place to begin to help people with their brain health? What advice would you give to a professional looking to build some of these concepts into their work environment?

**DR. AMEN** Well, we actually did a huge program at Saddleback Church in Southern California, which is one of the largest churches in the world. We launched a program called the Daniel Plan, to get the world healthy through where people *are*. One of those places is church. The first week 15,000 people signed up. The first year they lost a quarter of a million pounds, and the stories were just spectacular. Better energy, better focus, better mood, off many of their medications, reductions in stress, blood pressure, diabetes medications and so on. We were so excited. But where else do people spend their time? They spend more time at work.

If we could engage businesses in promoting brain health, think of benefits to businesses whose employees have better energy, better mood, better decision-making, better teams. Isn't that really what we want? Because a business' best asset is not your patents. The business' best asset is the collective brain health of all of your employees, because they are the ones making decisions that make things work or not work. 📌

“Then I think the last lesson we learned, the biggest lesson we learned ... the most exciting lesson we learned is that you are not stuck with the brain you have, you can make it better and I can prove it.”





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