

In this segment, we're going to talk about how to use nutrition to feed your brain. And we're going to talk about a few nutritional deficits that can mimic mental health disorders like anxiety and depression.

Our brain isn't just a mind, it's a five-pound chunk of fats and proteins and chemicals and water and all sorts of other physical building blocks. In order for it to run well, it needs really specific nutrients. Many people just aren't getting the right nutrients that the brain needs to be healthy. In this segment we're going to talk about some of the most common nutrient deficiencies that have been shown to contribute to depression and anxiety, and may impact mental health. I'm also going to cover a couple of popular supplements that rigorous research has shown to be effective.

But first a few Disclaimers:

Caveat #1- I'm not a doctor. You should work with a doctor before making any changes to medication or supplements. I'm a therapist who reads the research, boils it down and shares it with people.

Caveat #2- I am not anti-medication, I recommend to my clients that they consider the pros and cons of multiple treatment approaches as we try to combat mental illness. I just have many clients who don't want to use medication so I want to make sure to help them understand other treatment options.

Caveat #3- just because something is natural does not mean it is safer or has less side effects. Snake Venom, Lead, and Arsenic are all natural substances that will poison or kill you. Supplements are not evaluated by the FDA. That means that they haven't been rigorously tested for purity, safety or effectiveness. An example of this was some homeopathic teething tablets¹ for babies, sold on the shelves of walmart and other stores. Turns out they weren't pure enough, some contained varying amounts belladonna and some babies died. Because supplements aren't regulated by the FDA, supplements companies can claim all sorts of things that may or may not be true. So just because something is natural does not mean that it is safe.

Caveat #4 Many of the people purporting a certain supplement are using mostly anecdotal evidence- meaning their friend or their sister in law or someone they know used this supplement and it helped. And while that may be true, it's not enough to determine if that's going to be effective for a majority of people. There are other factors in action (like the placebo effect). This occurs when people believe they are going to get feeling better by taking something, and so they do feel better. So with many supplements, when people start taking them, they report feeling better, but at the same levels as those taking a sugar pill. Meaning that the change came from their belief and not from the substance. Research shows some natural supplements are helpful, but I don't like it when people selling essential oils or supplements promise more than is backed by rigorous research.

So Many Claims out there:

If you run a search, there will be hundreds of supplements claiming to have

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<https://www.cnn.com/2016/10/12/health/hylands-teething-tablets-discontinued-fda-warning/>

benefits for anxiety or depression- but the truth is that there isn't enough research on most of them to know if these are safe or effective. I'm going to cover 6 supplements that at least have some research, but as far as the rest of these supplements go, most just aren't backed by solid research.

And that's the reason most doctors aren't prescribing supplements-because there aren't big enough, rigorous enough trials to determine how safe they are. Good research includes multiple studies, high numbers of participants, randomized groups, compares with a placebo, and minimizes research bias and conflict of interest. For this reason controlled studies are expensive and often limited when it comes to supplements.

If you want to try any of these supplements, work with your doctor, but know that you're basically running a little experiment on yourself. Now taking medication also comes with risks, there's currently no way to know who will experience side effects from Prozac or Xanax, but the difference is that medications approved by the FDA have been shown through rigorous research to have a high enough benefit to risk ratio.

Ok- that being said-There are some supplements that have been shown to be effective, so let's talk about some of the research backed natural treatments for anxiety:

Food

Let's start with what should be the foundation of your health, your diet. What you eat has a huge impact on your physical and mental health. Recent research² is showing that eating a diet based on vegetables, whole grains, fish, fruit, and unprocessed lean red meat can help prevent Depression, decrease anxiety, and can help treat those disorders to promote healing. So start off with checking your diet and find one way to improve, whether that's decreasing highly processed foods, or adding some spinach to your smoothie, even little changes can make a big difference.

Now let's talk about some other nutrients.

Vitamin D

The first nutrient we'll cover is Vitamin D. Vitamin D deficiency is actually really common- about 50³ to 70 percent of people are low on their Vitamin D levels. A deficiency in Vitamin D has long been associated with Seasonal Affective Disorder and Chronic Depression⁴. So there are some people out there who think they're depressed because of their thoughts or whatever else is going on in their life. But the real problem is just a Vitamin D deficiency. Vitamin D receptors appear in a wide variety of brain tissue, and when activated they increase nerve growth in your brain. You can get tested at your doctor's office to see what your Vitamin D levels are and then you can begin to supplement them if necessary. There are multiple studies showing an improvement in symptoms of depression with high levels of D supplement.

² <https://www.wsj.com/articles/the-food-that-helps-battle-depression-1522678367>

³ Nair R, Maseeh A. Vitamin D: The "sunshine" vitamin. *J Pharmacol Pharmacother*. 2012;3(2):118–126. doi:10.4103/0976-500X.95506

⁴ Shaffer JA, Edmondson D, Wasson LT, et al. Vitamin D supplementation for depressive symptoms: a systematic review and meta-analysis of randomized controlled trials. *Psychosom Med*. 2014;76(3):190–196. doi:10.1097/PSY.0000000000000044

Anyone who is struggling with Depression or other mental health concerns should take the time to rule out a Vitamin D deficiency, and if you are deficient you can supplement to try to get your levels up. Vitamin D is naturally occurring in foods like fatty fish including tuna, mackerel, and salmon. And there are some foods that are fortified with Vitamin D like dairy products, orange juice, soy milk, et cetera. And you can also find Vitamin D in beef liver, cheese, and egg yolks.

Exposure to sunlight (specifically UVB radiation) helps the body activate Vitamin D in your skin, so do what you can to get sunlight in healthy doses. If you do decide to supplement Vitamin D, make sure to take Vitamin K2 and magnesium in conjunction with it.

B Vitamins⁵

B-Vitamins are really important for your the health of your brain and body. There are eight B Vitamins, collectively called B Complex Vitamins. The very best way to get them is by having a healthy diet, And that goes for all the Vitamins. Just supplementing with Vitamins is not going to replace the need for a healthy diet. Eating lots of plants, vegetables, and fruit is going to help you have better access to the multitude of nutrients that you need.

B Vitamins are necessary for the basic upkeep of healthy nerve and blood cells and they're essential ingredients for the production and proper functioning of several neurotransmitters including dopamine, which is crucial to the experience of pleasure. Deficiencies in Vitamin B 12 and B6 and perhaps other B Vitamins have been associated with depression, anxiety and other mental health disorders. One in four people has a Vitamin B 12 deficiency, which is associated with depression.

So again here's another deficiency that people might think "I'm depressed". And what's really happening is not that they're crazy or that they're having bad thoughts but that they just have a nutrient deficiency.

“Ken” had chronic low energy. He was pretty depressed and he was having some suicidal thoughts. Ken was a really hardworking and kind guy, and he was trying really hard to make his life better. He attended therapy and worked to improve his thinking patterns, but still struggled with depression and low energy.

And so he did some genomic testing. He got his genes sequenced and sent it out to some third parties and found out that he did not metabolize Vitamin B 6. So he started supplementing with Vitamin B6. He noticed that his energy levels increased and he had fewer symptoms of depression. He still experiences it to a degree but not as much as before. He also found out that by supplementing with that Vitamin B6 that he needed one less hour of sleep per night. So an extra hour of life every day.

Now obviously everyone's different. Most people are able to metabolize Vitamin B6. So this might not apply to you. That's why I want to remind you again to work with

⁵ <https://www.psychologytoday.com/us/articles/200401/vitamins-get-your-bs>

the doctor as you try and figure out what's going on with your physiology when you're working to improve your mental health.

Inositol⁶ also known as Vitamin B8 is naturally occurring in food, and in the US the average diet includes about 1 gram a day, but studies testing supplementing with 12-18 grams have shown some pretty impressive results with relatively few side effects. It is considered safe and somewhat effective, specifically with panic disorder, agoraphobia (fear of leaving the house) depression, and OCD though more research is needed.

There is decent amounts of research showing that for some people supplementing with Vit D, B6, B12 can have a positive impact on Anxiety and Depression, and taking a multivitamin has been shown to help with GAD. But one of the reasons they're at the top of my list is that they are safe and cheap, there are few downsides to taking a multivitamin every day.

Magnesium- Magnesium is a common natural element that is essential for hundreds of bodily functions, every single cell needs magnesium to perform it's essential functions. It assists with energy creation, protein formation, gene maintenance and nervous system regulation. Magnesium is naturally found in foods, especially dark leafy greens, nuts, avocado, and bananas. Magnesium deficiency is associated with Anxiety, OCD⁷, and other mental health disorders.

During one conference on integrative health, the facilitator shared the case study of a woman who had started taking calcium supplements and the calcium, without her knowing it, depleted the magnesium in her body. And for the first time in her life, she developed OCD symptoms. She was extremely anxious in her thinking and compulsive in her behaviors because of this magnesium deficiency. By working with her doctor she was able to find out about the deficiency and when she decreased the amount of calcium supplements and increased the amount of magnesium supplements, the OCD symptoms went away.

Again, it's a story of someone who thought that there was something wrong with them or that they were going crazy. And in reality, it was just a nutrient deficiency. There is quite a bit of research showing positive effects, and it's relatively safe. In a randomized controlled trial in depressed older adults, 450 mg of magnesium daily improved mood as effectively as an antidepressant drug. In another study Mice with Mg deficiency were more anxious.⁸ More research is needed, but again, relatively safe and

⁶ <https://www.ncbi.nlm.nih.gov/pubmed/9169302>

⁷ Sartori SB, Whittle N, Hetzenauer A, Singewald N. Magnesium deficiency induces anxiety and HPA axis dysregulation: modulation by therapeutic drug treatment. *Neuropharmacology*. 2012;62(1):304–312. doi:10.1016/j.neuropharm.2011.07.027

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<https://www.cambridge.org/core/journals/acta-neuropsychiatrica/article/dietary-magnesium-deficiency-affects-gut-microbiota-and-anxietylike-behaviour-in-c57bl6n-mice/5C88146E8479E64F485E9C79D9CDDDB8>

inexpensive.⁹

Some people may choose to supplement with magnesium glycinate. As always, work with your doctor to understand your options.

Omega 3¹⁰

Omega 3 fatty acids¹¹ are essential for proper brain functioning. Deficiencies in Omega 3¹² have been associated with Depression and other mental health disorders. There are a lot of studies involving Omega 3, and one interesting study showed that people with low levels of Omega 3 had a much more negative outlook about life in general. Other studies have shown that supplementing with Omega 3 helps improve¹³ Depression and Anxiety

So again, here's a simple supplement that may help your brain function better. Most people don't get enough Omega 3¹⁴ in their diet. Omega 3 can be found in fish, flaxseed, chia, walnuts soybeans, spinach, and you can consider taking fish oil or other Omega 3 supplements.

Zinc- Zinc is a naturally occurring element, you can get it from your food, and there have been a couple of studies showing that a Zinc deficiency is associated with OCD, Panic Attacks and Generalized Anxiety. And a couple of studies have shown that supplementing with Zinc has improved anxiety symptoms.

St. John's Wort- St. John's wort is one of the most popular natural treatments for depression, and one of the most researched, there are dozens and dozens of high-quality studies showing its effectiveness at treating mild to moderate depression. Many studies show that it is as effective as antidepressant medication and some show less side effects or similar side effects. It has not been shown¹⁵ to be effective for anxiety, but since anxiety and depression are often comorbid (experienced at the same time) it may be one to consider. Because of the quality and quantity of the research I feel more confident about knowing what to expect with SJW.

⁹ <https://www.ncbi.nlm.nih.gov/pubmed/23950577>

¹⁰ <https://www.sciencedaily.com/releases/2006/03/060303205050.htm>

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<https://www.psychologytoday.com/us/blog/in-the-zone/201201/anxiety-and-omega-3-fatty-acids>

¹² Grosso G, Galvano F, Marventano S, et al. Omega-3 fatty acids and depression: scientific evidence and biological mechanisms. *Oxid Med Cell Longev*. 2014;2014:313570. doi:10.1155/2014/313570

¹³ Nemets B, Stahl Z, and Belmaker RH. "Addition of omega-3 fatty acid to maintenance medication treatment for recurrent unipolar depressive disorder." *Am J Psychiatry* 159:477-479 (2002)

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<https://www.mayoclinic.org/diseases-conditions/depression/expert-answers/fish-oil-supplements/faq-20058143>

¹⁵ [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5010734/>]

However it's not without side effects.¹⁶ It may come with some symptoms like SSRI's (a class of antidepressants that include Prozac), and it can interfere with other medications- including anxiety medication. Adverse events reported in RCTs were comparable to placebo and fewer compared with antidepressants. And like all supplements it is not regulated by the FDA.

Caffeine:¹⁷

Caffeine is the most widely used psychoactive agent in the world, 90 percent of Americans use caffeine every single day, but the effects of caffeine on the brain and nervous system can be pretty destructive. Caffeine crosses the blood brain barrier in minutes and shuts down the production of Adenosine- the relaxation and calming chemical in the brain. That's why it helps people feel more energy in the short term, but one cup of coffee can increase anxiety and impact sleep for up to 48 hours. Caffeine consumption is associated with Depression and Anxiety.

So if you're having a problem with Depression, Anxiety, or sleep then you should consider cutting caffeine out of your diet for a week just to test it out and to see how that impacts you. Nicotine, Alcohol, and other drugs also negatively affect the emotional state. If you want to get mentally healthy consider eliminating them.

Gut Health

We've all experienced how our stomach gets upset when we have an emotional experience right? Like having that butterfly feeling in the stomach or feeling like you took a hit to the gut when something emotional happens. A lot of people don't know how important your gut bacteria is for your mental health. Your gut is literally your second brain¹⁸. Ninety-five percent of the serotonin that's produced in your body occurs in your gut.

So it's important to be aware of your gut health and work to improve it. Obviously eating healthy foods including lots of vegetables, less processed foods is important to both physical and mental health. Another way to improve gut health is by eating probiotics and fermented foods like kimchi.

Taking antibiotics can sometimes affect that gut bacterial balance and can impact mental health. I'm not saying don't take antibiotics. I'm saying just be aware that sometimes that can be a factor. Another thing to consider is looking into food allergies. Food allergies are associated with mental health conditions including: "ADHD, anxiety, autism, chronic fatigue (which can go beyond just physical feelings and affect mental health, as well), depression, dizziness (often associated with anxiety), hyperactivity, lethargy, PMS, tension, weight gain and weight loss (both of which tend to have an effect on self-esteem). "

¹⁶ [<https://www.healthline.com/health-news/is-st-johns-wort-safe-080615#6>]

¹⁷ <https://www.ncbi.nlm.nih.gov/pubmed/26508718>

¹⁸ <https://www.scientificamerican.com/article/gut-second-brain/>

“So how¹⁹ exactly do these food allergies and reactions contribute to the mental health issues named above?

Quite simply, studies have already shown a connection between stress, inflammation, and disease...The most common food allergies include: tree nuts, peanuts, cow's milk, hen's eggs, soybeans, fish, shellfish, and wheat. For most of us, many of these are foods we eat frequently. And with a statistic like up to 60% of Americans have delayed food allergies, it is cause for concern.”

So look into food allergies and see if that's impacting your mental health.

There are many medical conditions that mimic or influence mental health disorders. So it's important to work with a doctor to rule out any physical causes of mental health issues. Again, when you're diagnosed with depression it's not telling you “Your depression is causing you to feel this way”, the diagnosis says “you're having this cluster of symptoms and we don't exactly know what's causing it”.

Get Checked for Physical Disorders

There are many, many physical conditions that can affect mental health and some of them even mimic mental health disorders like depression or anxiety. These include: Thyroid Disorders, Diabetes, Sleep Disorders, MS, Lyme Disease, Vitamin Deficiencies (D3, B's, Magnesium), Anemia, Food allergies, Endocrine disorders, hormonal changes, ... long story short consider getting a check up...Obviously I'm not a doctor- but I frequently work with doctors to rule out physical conditions for my clients. Sometimes a simple change in medications, or treatment for an illness completely changes a person's emotional state.

Usually this involves getting a physical, running some blood tests, and there are other types of testing you can get done to rule things out. Some genomic testing, and allergy testing can also be helpful in ruling out disorders.

So in summary, just take good care of your body to have a healthy mind. Small changes can make a big difference. Work with your doctor to consider supplementing with things like Vitamin D, B Vitamins, Magnesium, Zinc or Fish Oil. You may also consider cutting out Caffeine, Alcohol or other psychoactive substances from your diet. By creating a healthy body you're setting the stage for your brain to heal and function at its very best. And this is going to lay the foundation for you to be healthier and happier.

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[https://www.integrativepsychiatry.net/is_there_a_connection_between_food_allergies_and_mental_health.html]