

## Depression: Part 2

"Address depression and anxiety with a few key nutrients and lifestyle changes. Just one of these ideas could change your life forever."

In a previous video, we talked about the rise of depression and anxiety and how inflammation in the brain can be the underlying cause. We shared that supporting the bacteria, or what we call the microbiome in our gut, can reduce inflammation and have a profound effect on a healthy brain. We focused on the microbiome as the first step to healing a leaky gut. Of course, feeding the microbiome means eating clean food. That means staying away from processed foods and increase your consumption of seeds, nuts, fruits and vegetables, and consuming an anti-inflammatory diet. The big idea we shared was that inflammation in the brain is an underlying cause of depression.

Here's the healing process we identified for depression; Support

the microbiome which includes healing the gut. Supply the body with the nutrients and foods that have been shown to reduce inflammation, and then address lifestyle factors that stimulate life in your mind and body.

Beyond supporting the microbiome, one the best ways to heal the gut is by using GI-Resolve by Biotics Research. GI-Resolve contains 4 grams of glutamine per serving as well as multiple botanicals that encourage the production of healthy mucus to protect and heal the stomach and small intestine. It has a mild iced tea flavor. Use 2 tsp bid with 8 ounces of water. For reflux relief mix 2 tsp in 2-3 ounces of water and sip slowly over a 30-minute period.

What are some of the ways we can reduce inflammation in the

brain? How can we increase anti-inflammatory messengers or cytokines, while reducing the production of pro-inflammatory cytokines? The first step is to optimize Vitamin D, which means working with your wellness clinician and reaching optimal blood levels. Vitamin D supports and enhances many systems in your body. Vitamin D reduces pain thresholds, protects against cancer, reduces inflammation systemically, reduces blood clotting, supports the immune system, has antimicrobial properties, and has docking sites on at least 2,000 of our 25,000 genes.

Vitamin D has been shown to reduce depression in several studies independent of some of the things we have been discussing.

The next step is to take therapeutic levels of fish oil to reduce inflammation in the body and in the brain. When scientists talk about reducing inflammation, they talk about reducing "cytokines" or chemical messengers that either turn on or propagate inflammation. Fish oil reduces inflammatory cytokines in multiple ways. One of the exciting new findings regarding fish oil, especially the DHA fraction in fish oil, is that it increases BDNF, Brain Derived Neurotrophic Factor. BDNF enhances brain growth and repair. Our brains shrink as we age, so when we hear of something that feeds our brain and increases growth, it's exciting. The maintenance for fish oil is 2 grams per day. For therapeutic levels, clinicians use 3-5 grams, and with concussions and other brain injuries, even higher doses for a short period time. 5 grams is easily accomplished with 2 tsp of Bio-Mega 3 Liquid or 5 capsules of Biomega 1000.

Other botanicals shown to increase BDNF are curcumin, green tea extract, resveratrol, and lipoic acid. Interestingly, Biotics Research put these same products in a supplement called KappArest to reduce a highly inflammatory cytokine or messenger called NF-kappa B. KappArest contains an emulsified form of curcumin to increase absorption. Three capsules 2-3 times a day provide a therapeutic dose.

Two other low-tech strategies for reducing inflammation are magnesium and zinc. Magnesium increases blood flow, prevents excessive blood clotting, and protects the brain by modulating excitotoxicity. Under conditions of inflammation, a great deal of magnesium is lost from the body. Also, low zinc levels are

associated with depression and anxiety. Zinc modulates excitotoxicity and supports a healthy immune system.

Have you ever thought exercise could reduce inflammation? Research shows that exercise can relieve even serious cases of depression and stress. Exercise causes your muscles to produce and release BDNF. I was excited to learn that BDNF is made in both your muscles and your brain and once made can easily cross the blood brain barrier. BDNF fights depression and repairs the stress-linked atrophy. It also restores lost memory.

Exercise also causes the brain to release pain-relieving compounds. For some people, this is a touchy subject but is true nonetheless, Obesity is associated with several inflammatory conditions because adipose tissue or "fat cells" secrete extremely high levels of inflammatory messengers or cytokines. Obesity causes a reduction in adiponectin. Adiponectin is a major inhibitory factor for several inflammation markers. So not only does obesity cause inflammation, but it reduces a major inflammation regulator.

If weight loss is an issue, your wellness clinician has multiple healthy strategies to help you. I know I have been covering a lot of territory, but depression is a serious subject, and I wanted to give you hope so that you know there are multiple mechanisms to address depression and anxiety with a few key nutrients and lifestyle changes. Just one of these ideas could change your life forever.