

Depression

May Article by Emily Day, A.P.R.N.

As I write this article, we are steeped in prudent, but challenging social distancing rules in an effort to minimize the spread of the Coronavirus. As we adapt the best that we can, I want to highlight the many strategies we can use to support our mental health and minimize signs and symptoms of depression.

Neurotransmitters are chemicals that affect our mood and behavior, and they include serotonin, epinephrine (a.k.a. adrenaline), and others. We make neurotransmitters through two main pathways: via the nutrients we consume through food as well as via the microbiome in our gastrointestinal tract. In fact, up to 70-90% of our neurotransmitters are synthesized by the bacteria within our gut! As such, it's important that we support these two main production pathways of our mood-lifting neurotransmitters.

First, make sure you're getting adequate protein each day because the amino acids (the building blocks of protein) are in turn the building blocks for our neurotransmitters. For example, Tryptophan, present in most protein-based foods, is a precursor to the neurotransmitter serotonin, which helps our mood. Tryptophan is particularly plentiful in eggs, fish, poultry, nuts, and dairy products. Aim for a serving of protein (about the size of your palm) with each meal.

In addition to protein, we also need Magnesium, Vitamin B6, and Vitamin C to make serotonin, so be sure to include colorful fruits and vegetables with each meal to get a variety of vitamins and minerals. Furthermore, the carbohydrates within fruits and vegetables help ensure that tryptophan crosses the blood-brain barrier into the cerebrospinal fluid where it's converted to serotonin.

Regarding the second way our bodies make neurotransmitters, research has shown that certain bacteria produce calming neurotransmitters such as serotonin and GABA, whereas other bacteria produce adrenaline and other "activating" neurotransmitters. Promote the former through whole, minimally processed foods, incorporating a variety of colorful fruits, vegetables, legumes, nuts, seeds, and oils. If able, also incorporate fermented vegetables such as raw (uncooked) sauerkraut, Kim chi, miso, Kombucha, and plain unsweetened yogurt for additional sources of healthy bacteria. You could also reach out to your Functional Medicine provider if you'd like guidance on a probiotic supplement that would be right for you.

Be diligent to get 8-9 hours of sleep daily as insomnia is significantly associated with depression. Possible reasons for this connection include impaired emotional regulation and decreased stress resilience in those with insomnia. Furthermore, fatigue is a further precursor to depression as patients describe feeling too tired to do what they enjoy. As such, they are more isolated, potentially perpetuating the risk for depression. Do everything you (safely) can to get better sleep, without reaching for substances that can

lead to addiction or tolerance such as alcohol and Benadryl. If your strategies are not effective, reach out to your Functional Medicine provider for more support.

Moving daily not only helps you have a better quality of life, but it also improves your mental health. As many of us are limited in some activities (such as swimming at the local gym), take advantage of the warmer weather to get 30-60 minutes per day of moderate-intensity activity outside, such as walking, jogging, or riding a bike. Moderate intensity means that your heart rate is a bit elevated from baseline, but you could still carry on a conversation. In addition, spend time working on stability exercises to keep your strength up. If you need guidance, physical therapy offices offer virtual visits, or you could look into some online pilates/core strength videos to follow.

Learn to manage your stress. Unfortunately, these are very stressful times for some, if not all of us. Although we cannot escape stress, we can work to manage it more effectively, to improve our stress resilience, sense of control, and mood. Be sure to incorporate 10-20 minutes 1-2x daily of meditation, prayer, journaling or other activity that reduces your stress response. There are some excellent smart phone apps that can help guide you, such as “Headspace” or “Calm” among others.

Although Spring is here, some of us may not be able to be outside as much as we would like. Thankfully, Light Therapy is a safe and effective way to help our mood. Sitting or standing in front of a light box (10,000 Lux, which mimics outdoor light) for 30-60 minutes in the morning hours was found to be as effective as a common prescription antidepressant with fewer side effects, faster onset, and no black box warning! You can find these light boxes online and have them delivered to your residence.

If the above strategies don't feel sufficient for you, contact your Functional Medicine provider for additional ideas. For example, there is a urine test that can measure your current neurotransmitter levels, which then allows your provider to make more targeted nutrition and supplement suggestions. There is also a comprehensive stool test to assess your balance of healthy and unhealthy gastrointestinal bacteria. If you trend towards unhealthy bacterial overgrowth, your provider can suggest dietary and supplement strategies to improve this essential ecosystem, to help balance your neurotransmitters and mood.

Lastly, if you struggle with lingering symptoms of depression, especially if you feel at risk of hurting yourself or others, please reach out to your provider for additional help as you may be a candidate for prescription medication. The lifestyle measures listed above can be a wonderful tool on top of medication to improve outcomes, but should not be used alone if your symptoms are more serious.