

# Self-Care Wellness Toolkit

## Depression and Anxiety

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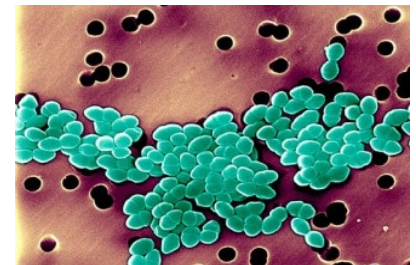
Depression and anxiety are commonly experienced by college students. There are many different ways to treat depression and anxiety and often the most effective treatment involves a combination of approaches. This document highlights lifestyle and self-care approaches to help prevent or decrease symptoms of depression and anxiety. Only safe approaches supported by research are presented. These approaches can be used individually or combined with prescription medication and counseling depending on the severity of your symptoms.

### Eat a Well-Balanced Diet

Diets high in processed or fried foods, refined grains, and sugary products are associated with increased anxiety and depression; whereas diets high in vegetables, fruit, meat, fish, and whole grains are associated with lower amounts of depression and anxiety, improved mood, and energy.<sup>1-3</sup>

#### SUPPORT THE GOOD BACTERIA IN YOUR GUT

It is estimated that the human gastrointestinal tract contains 100 trillion good bacteria. Research shows that this gut microbiome plays an important role in the health of your brain and mood. This is known as the gut-brain connection. Gut bacteria produce hundreds of neurochemicals that the brain uses for processes such as learning, memory and mood. For example, gut bacteria produce about 95 percent of the body's supply of serotonin (the neurotransmitter that helps improve mood).<sup>1,4</sup> You can maintain a healthy gut microbiome through consuming a healthy diet and getting regular exercise.<sup>1,5</sup> The consumption of complex carbohydrates, plant-based foods/fruits and vegetables and fermented food can have beneficial effects on your gut microbiome, and in



Enterococcus: the main type of beneficial bacteria in the gut

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**A recent study showed that a diet rich in fermented foods helped decrease social anxiety in college students.<sup>6</sup>**

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turn, on your health and wellness.<sup>1,4-6</sup>

## EAT COMPLEX CARBOHYDRATES — AVOID SIMPLE CARBOHYDRATES

Simple carbohydrates (such as sugary foods, soda, fruit juice, candy, white flour, and white rice) cause your blood sugar to fluctuate from high to low. Low blood sugar can cause symptoms of anxiety and panic (sweating, fast heart rate, headache, difficulty thinking).<sup>7</sup> Focus on eating foods rich in complex carbohydrates, which are thought to increase the amount of serotonin in your brain (a neurotransmitter with a calming effect). Complex carbohydrates include whole grains such as oatmeal, quinoa, whole-grain breads and whole-grain cereals.<sup>8</sup>

## EAT FRUITS AND VEGETABLES

Consumption of fruits and vegetables has been shown to prevent anxiety and depression and improve mood and energy.<sup>3</sup> A study of young adults found that on days when they ate more fruits and vegetables they felt calmer, happier and more energetic. These positive effects continued into the next day.<sup>3</sup>

## EAT ENOUGH PROTEIN

Protein provides sustained fuel for your body, helps regulate your blood sugar and gives your body the building blocks (amino acids) it needs for making neurotransmitters, which control your mood. Your body can make some amino acids, but there are 8 (essential amino acids) that must be supplied through dietary sources. Foods rich in high quality protein include meats, fish, milk and other dairy products, eggs, beans (adzuki beans are particularly high in protein), lentils, nuts, and seeds (quinoa, hemp seeds, chia seeds).<sup>9</sup>



## MIND YOUR MICRONUTRIENTS

While your body needs macronutrients (proteins, carbohydrates, and fats), it also needs micronutrients, which are essential for regulating a wide range of biological processes including your mood. Micronutrients include things such as vitamins, minerals, and essential fatty acids.

### *B Vitamins*

Research has shown that the B vitamins, folate (B9) and B12, are important for mood regulation. These vitamins play a role in neurotransmitter production. Low levels of folate and B12 are associated with depression and supplementation with these vitamins can help decrease symptoms of depression.<sup>10-12</sup> Include foods in your diet that are high in folate and B12. Good sources of folate include beans, lentils, green leafy vegetables, nuts, seeds, and sprouts. Vitamin B12 is found naturally in a wide variety of animal foods (meat, shellfish, poultry, eggs, milk and other dairy foods). Plant foods have no vitamin B12 unless they are fortified (some breakfast cereals, nutritional yeasts, enriched soy or rice milk). If you are vegetarian or vegan you are at risk for B12 deficiency.<sup>13</sup> You should aim to get your vitamins and minerals from eating a healthy, balanced

diet with plenty of fruit and vegetables but in certain circumstances or for certain people, supplements may be beneficial.

### *Vitamin D*

Vitamin D is a hormone, which is made in your body when your skin is exposed to sunlight. Vitamin D helps regulate neurotransmitters, which influence your mood. Low levels of Vitamin D are associated with an increase in depression.<sup>14,15</sup> There is evidence that supplementing with vitamin D can improve depressive symptoms in people who have low levels.<sup>14</sup> You can ask your provider for a blood test to check your vitamin D level. The main ways to get vitamin D are by exposing your bare skin to sunlight or taking vitamin D supplements. The amount of sun exposure needed depends on several factors (learn more at [Vitamin D Council](#)) It is difficult to get enough vitamin D from foods, since most foods that contain vitamin D only have small amounts.<sup>16</sup>

### *Omega-3 Fatty Acids*

Omega-3 fatty acids are considered essential fatty acids- they are essential for human health, but your body can't make them- you need to get them through food. Omega-3 fatty acids play an important role in brain structure and function.<sup>17</sup> People with depression and anxiety have been shown to have low blood levels of omega-3 fatty acids and consumption of omega-3 fatty acids can help improve symptoms of depression and anxiety.<sup>18-20</sup> A research study of medical students showed that students taking 2.5 grams of Omega-3 fatty acids per day had a 20% reduction in anxiety symptoms compared to students taking placebo. In studies showing a beneficial effect of Omega-3 fatty acids on depression the daily dose was typically 1 to 2 grams per day.<sup>19</sup> Omega-3 fatty acid supplementation has also been shown to be effective at improving depression in people who are taking antidepressants, but still have depressive symptoms.<sup>21</sup> Omega-3 fatty acids can be purchased over the counter. You can also get omega-3 fatty acids in your diet. Try to have at least one rich source of omega-3 fatty acids in your diet every day, such as a serving of fatty fish (salmon, tuna, sardines, anchovies, herring), or shellfish (clams, oysters, muscles), or a handful of walnuts or ground flaxseed or chia seed.



## DON'T SKIP BREAKFAST



Breakfast has long been regarded as the most important meal of the day and recent research confirms the importance of eating breakfast.<sup>22-25</sup> Skipping breakfast is associated with many health risks, including obesity, reduced intake of essential nutrients, higher cholesterol levels, and metabolic changes related to diabetes.<sup>22,23</sup> Breakfast consumption has positive effects on brain function, attention-concentration, and mood.<sup>24,25</sup> Protein for breakfast is important for maintaining a stable blood sugar, increased alertness, and improved mood.<sup>25</sup>

### *Something to try*

- The Mediterranean diet, a gold standard healthy eating model  
<http://oldwayspt.org/resources/heritage-pyramids/mediterranean-diet-pyramid>
- Eat 3 meals a day and a healthy snack every few hours.
- Eat 7 to 8 servings of fruits and vegetables a day.

- Eat at least 3 to 4 ounces of protein with each meal (about a palm-size portion of protein with each meal).<sup>26</sup>
- Eat fermented foods such as yogurt, kefir, miso, sauerkraut, pickles, tempeh, and kimchi.

## Limit Alcohol

While many people use alcohol to help them relax, over time it can lead to mental health problems including depression, anxiety, and sleep and memory problems.<sup>1-5</sup> Alcohol is a depressant, which can interfere with your neurotransmitters (which control your mood), shrink the size of your brain cells, and decrease REM sleep.<sup>3</sup>

## Limit Caffeine

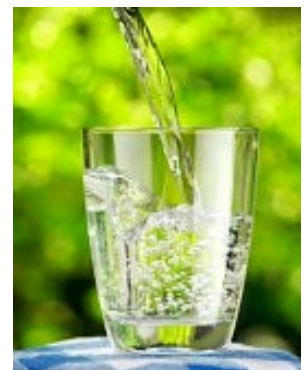
Caffeine can worsen anxiety.<sup>1</sup> Consumption of caffeine increases the stress hormone cortisol, which can interfere with memory and concentration.<sup>2</sup> Caffeine consumption suppresses melatonin production and interferes with sleep quantity and quality.<sup>3</sup> If you feel you must have some caffeine try drinking green tea. It has less caffeine than coffee and has multiple mental health benefits, including improved attention, calmness, reduction of anxiety, and improvement of stress symptoms.<sup>4</sup>

### *Something to Try*

- Green tea if you want some caffeine.
- Chamomile, passionflower, or lemon balm tea if you want to relax. These plants have properties that help relieve symptoms of anxiety and depression.<sup>5-8</sup>

## Drink Water

Even mild dehydration can adversely affect your mood and increase tension/anxiety and fatigue.<sup>1-3</sup> The Institute of Medicine determined that an adequate intake (AI) of total water intake for men is roughly about 15 cups (3.7 liters) of total water a day. The AI for women is about 11 cups (2.7 liters) of total water a day. About 80 percent of total water intake should come from drinking water and beverages and the other 20 percent is derived from food.<sup>4</sup> Generally, if you drink enough fluid so that you rarely feel thirsty and your urine is colorless or light yellow you probably are not dehydrated. Remember that caffeinated beverages and alcohol are diuretics (make you lose water through urinating more), so these beverages can lead to dehydration.



## Be Physically Active

Aerobic exercise, weight training, yoga, and Tai Chi have been shown to reduce depression, anxiety, and panic symptoms.<sup>1-5</sup> Two studies showed that aerobic exercise was as effective as an antidepressant (Zoloft) and people who continued to exercise had lower relapse rates of depression.<sup>6-8</sup> Physical activity has been shown to have anti-inflammatory effects and it may increase the diversity of good bacteria in the gut—which in turn increases serotonin, which helps improve mood.<sup>9</sup> Physical activity can reduce symptoms of anxiety within 2 weeks (6 sessions of 20 minutes each).<sup>10</sup> For depression, the most effect has been seen when physical activity sessions happen for 45 to 50 minutes at a time, 5 days a week for 10 to 16 weeks.<sup>2</sup>



### Something to try

- Ask someone to go on a walk with you.
- Go to a yoga class.
- If you feel you might benefit from having a physical activity mentor ask your provider about the WellFit program at HSU.

## Mental Health Benefits of Nature

### GREEN EXERCISE

Physical activity in a natural environment can help decrease depression, sadness, and anger, while alleviating stress and improving self-esteem.<sup>11-13</sup> Getting outside and moving for as little as 5 minutes can boost your mood and self-esteem.<sup>11</sup> While all green environments are beneficial to mood and self-esteem; the presence of a body of water generates greater improvements.<sup>11</sup>

### FOREST BATHING

A short leisurely visit to a forest—known as forest bathing—can reduce stress, anger, anxiety, depression and sleeplessness. In Japan, forest bathing (*Shinrin-yoku*) is a recognized relaxation and/or stress management activity and there are now 44 accredited Shinrin Yoku forests.<sup>14</sup>

## Get Enough Sleep



Sleep disturbances are very common among people with depression and anxiety.<sup>1,2</sup> Improving sleep can help relieve symptoms of depression and anxiety.<sup>1</sup> Lack of sleep increases levels of the stress hormone cortisol, which can interfere with memory and concentration and can weaken your immune system.<sup>3</sup> Sleeping at least 8 hours a night is important for learning as it is between the sixth and eighth hour of sleep that your brain processes new information and stores it in long-term memory.<sup>4</sup> Improve your sleep by getting regular exercise, going to bed at the same time every night, sleeping in a completely quiet and dark room, avoiding caffeine (especially in the afternoon), and avoiding alcohol.<sup>1,5-7</sup>

## Need to relax? Promote your GABA

Gamma-aminobutyric acid (GABA) is an amino acid, which the brain uses as a calming agent (inhibitory neurotransmitter). Low GABA levels are associated with anxiety, depression, and insomnia.<sup>1</sup> Many prescription medications for anxiety and insomnia interact with the GABA receptors in the brain (i.e. Xanax, Valium, and Ambien). GABA levels in the brain can be increased through relaxing activities such as yoga.<sup>2</sup> Clinical studies have shown that dietary GABA supplements increase alpha brain waves (relaxation) and help decrease anxiety and improve sleep.<sup>1,3,4</sup> GABA can be purchased over the counter. Typical dosage for anxiety or sleep disorders is 100 to 200mg up to three times a day. GABA Calm™ by Source Naturals is a sublingual tablet (dissolves under your tongue for quicker onset), which can be found on Amazon or at Eureka Natural Foods.

## Remember to Breathe

Anxiety tends to make people breathe shallowly. Slow, deep breathing has been shown to help relieve symptoms of stress, depression, anxiety, and post-traumatic stress disorder.<sup>1-3</sup> Slow, deep breathing stimulates the vagus nerve, which sends signals to the brain to calm down.<sup>4</sup>



### *Something to try*

- 4,7,8 breathing technique [https://www.youtube.com/watch?v=YRPh\\_GaiL8s](https://www.youtube.com/watch?v=YRPh_GaiL8s)
- Belly Breathing <https://www.youtube.com/watch?v=eRIV2R3jzaQ#t=185>

# Music Therapy



Music therapy has been shown to help relieve symptoms of stress, burnout, depression, anxiety, and pain.<sup>1-4</sup> It helps improve functioning, enhances relaxation, elevates mood and improves academic performance.<sup>4</sup> Studies have shown that while listening to music, dopamine (a neurotransmitter that makes you feel good) is released in the brain.<sup>4</sup> Music therapy can involve structured session with a therapist, playing an instrument, or just listening to light instrumental music for 20 minutes.

# Aromatherapy

Aromatherapy is the process of using the scent of aromatic plant oils to create a therapeutic effect. The odor molecules of essential oils are transmitted from the nose to the brain where they can influence memory, thoughts, and emotions.<sup>1-3</sup> Inhaling the scent of lavender essential oil has been shown to reduce stress and anxiety and improve sleep.<sup>1-4</sup> Studies have shown that smelling the scent of lavender can improve concentration and reduce test taking anxiety.<sup>1</sup> Inhaling the scent of chamomile essential oil has also been shown to improve mood and sleep and rose aromatherapy helps with relaxation.<sup>2,5</sup> Essential oils are widely available at health food stores and herb stores.



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## Something to try

Carry a bottle of essential oil with you. When you feel stressed or anxious take at least 3 slow deep breaths while you inhale the scent. Sprinkle a few drops on a piece of tissue and tuck it under your pillow, or use an aromatherapy diffuser. Put a few drops in your bath water or in a foot bath.

# Practice Mindfulness

Mindfulness is the process of maintaining attention and awareness on the present moment. It involves accepting and not judging our thoughts, feelings, bodily sensations, actions, and surrounding environment.<sup>1-3</sup> In other words, mindfulness is “staying calm in the present tense rather than being tense about the future.”<sup>4</sup> Studies have shown that mindfulness has many benefits. It reduces symptoms of anxiety, depression, insomnia and Post Traumatic Stress Disorder; increases density of gray matter in the brain responsible for learning, memory, empathy, and regulation of emotion; strengthens relationships; and boosts our immune systems.<sup>1-3,5</sup> Mindfulness exercises usually involve various types of meditation, body scans, and breathing. Mindfulness exercises delivered in face to-face settings or via the Internet are equally effective.<sup>2,3</sup>







# Manage your Stress

Chronic stress can lead to multiple health problems including anxiety, depression, sleep problems, memory and concentration impairment, digestive problems, weight gain, and heart disease.<sup>1,2</sup> While you may not be able to remove all of the stress from your life, you can develop healthy behaviors to help counteract the deleterious effects of stress on your body, mind, and spirit. Try to incorporate some the lifestyle and self-care tips presented here. Start with small changes and find what works best for you.

## *Something to try*

- Learn useful skills for stress reduction, understanding and controlling your moods, healthy communication and social interactions. Explore the on-line Life Skills Workshop series designed by HSU Counseling and Psychological Services <http://courses.humboldt.edu/course/view.php?id=18>



If you have any questions or concerns please contact the Student Health Center.

Author:

Jessica VanArsdale, MD, MPH  
Physician, Student Health Center



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## NEED TO RELAX? PROMOTE YOUR GABA

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### REMEMBER TO BREATHE

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