



Things you can do during COVID-19 to reduce stress

We are all experiencing more stress in our lives with the 24/7 updates of COVID-19, the impact on our livelihood and daily routine. The Sleep and Wellness Team is here to help our patient family. We are offering telemedicine appointments for any of you that need our help. Simply call in at **(609) 587-9944**, leave a message and our staff will return your call and set up an appointment for you. You may also e-mail us at info@sleep-wellness.org

Although there isn't much we can do to change our current external environment we do have ways to change our internal environment to decrease stress and boost our immune system. Coherence is a highly efficient physiological state where the nervous system, cardiovascular, hormonal and immune systems are working efficiently. More coherence equals less stress.

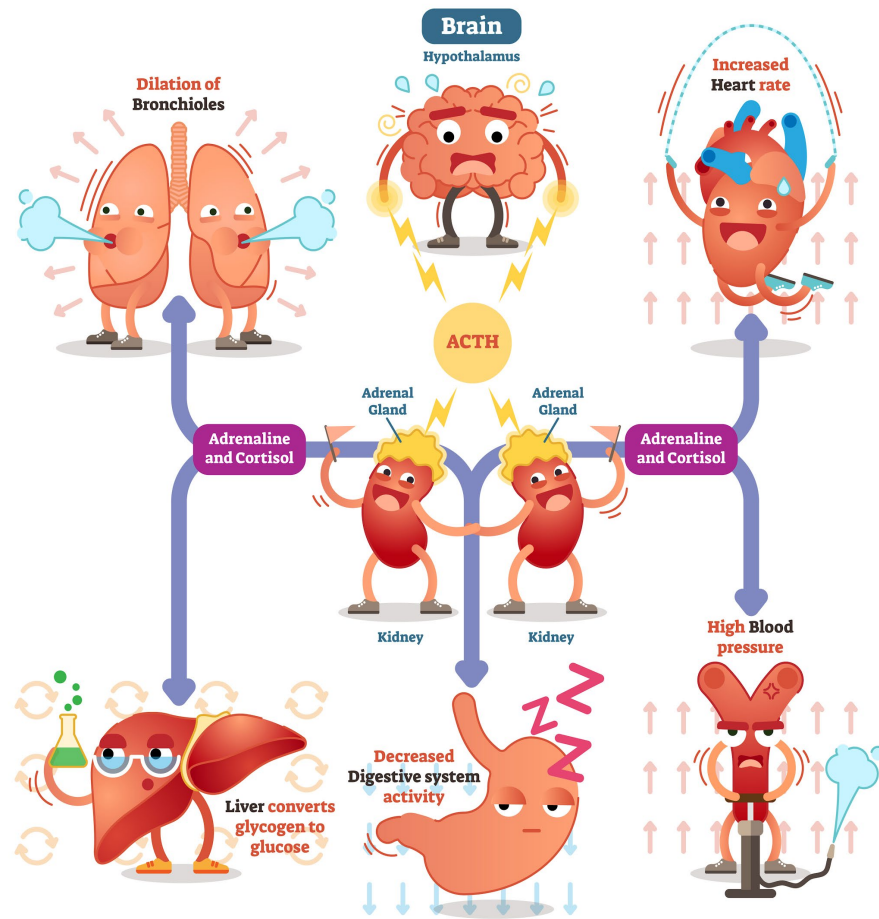


Let's look at some ways we can positively change our internal environment.

Stress

When a person is under stress, their breathing pattern changes, cortisol is released from the adrenal glands and muscle tension increases in the neck region and throughout the body. The breath is shallow and is referred to as apical breathing. Most of the muscles activated in apical breathing are in the upper chest, shoulder and neck region. This style of breathing also disrupts the balance of gases in the body, is inefficient and requires more breaths per minute.

STRESS RESPONSE SYSTEM



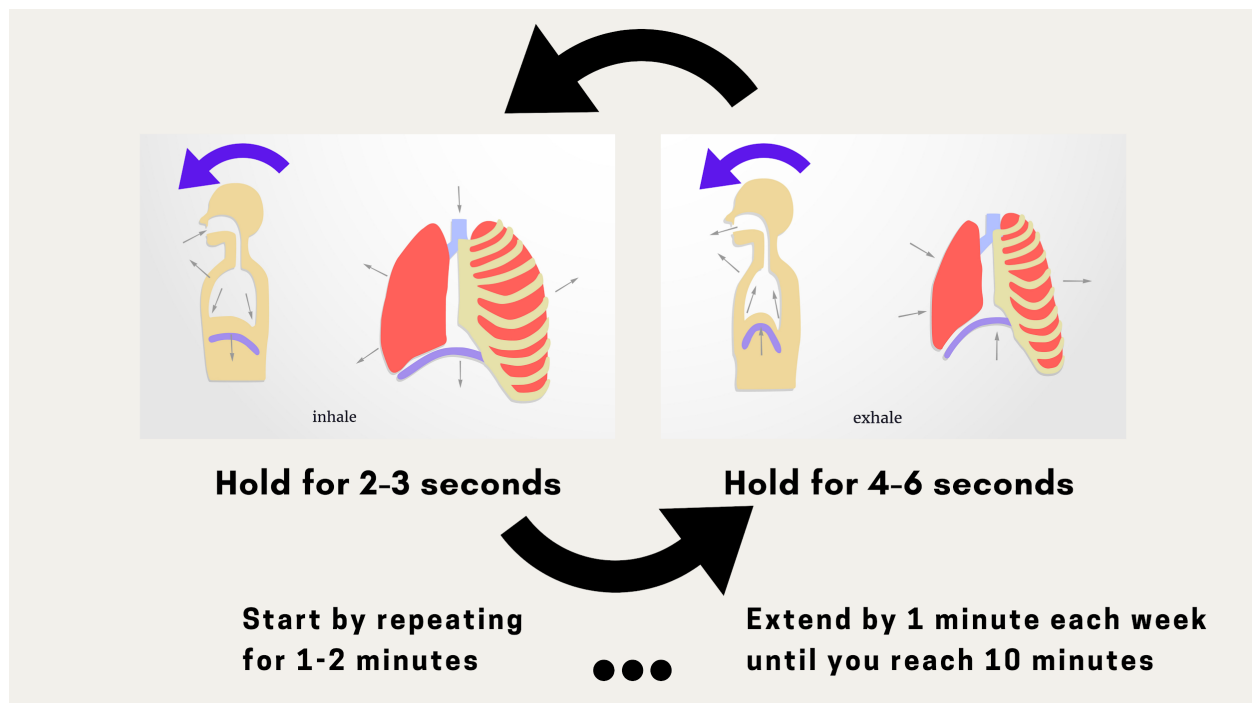
Diaphragmatic breathing, which uses the diaphragm (sometimes called belly/abdominal breathing because the muscle separates your lungs and abdomen), the muscles between your ribs, and certain muscles in the neck. With many muscles working together, air intake and expulsion are much more effective and require less breaths per minute.

Diaphragmatic breathing is able to help reduce stress in a number of ways:

- It helps you relax, lowering the harmful effects of the stress hormone cortisol on your body
- It lowers your heart rate
- It helps lower your blood pressure
- It improves your core muscle stability
- It slows your rate of breathing so your body expends less energy

Try one of the breathing patterns below to see which one resonates the most.

- A simple 2:1 breathing ratio activates the vagus nerve and guides the body back to a state of calm.
 - 1) Try inhaling for a count of 2-3 and exhaling for a count of 4-6.
 - 2) Keep the breath smooth and controlled. Eyes are either closed or open with a slight downward gaze.
 - 3) Start with 1-2 minutes and gradually build up to 5-10 minutes by adding a minute each week.



- Breathing with sound, vibration allows a person to go deeper into calmness. Eyes are either closed or open with a slight downward gaze.
 - 1) Begin by sitting upright with a straight spine, lightly press the tongue on upper palate in the mouth.
 - 2) Inhale for a count of 2-3 and on the exhale make a buzzing sound from the throat for a count of 4-6.
 - 3) Start with 1-2 minutes and gradually build up to 5-10 minutes by adding a minute each week.

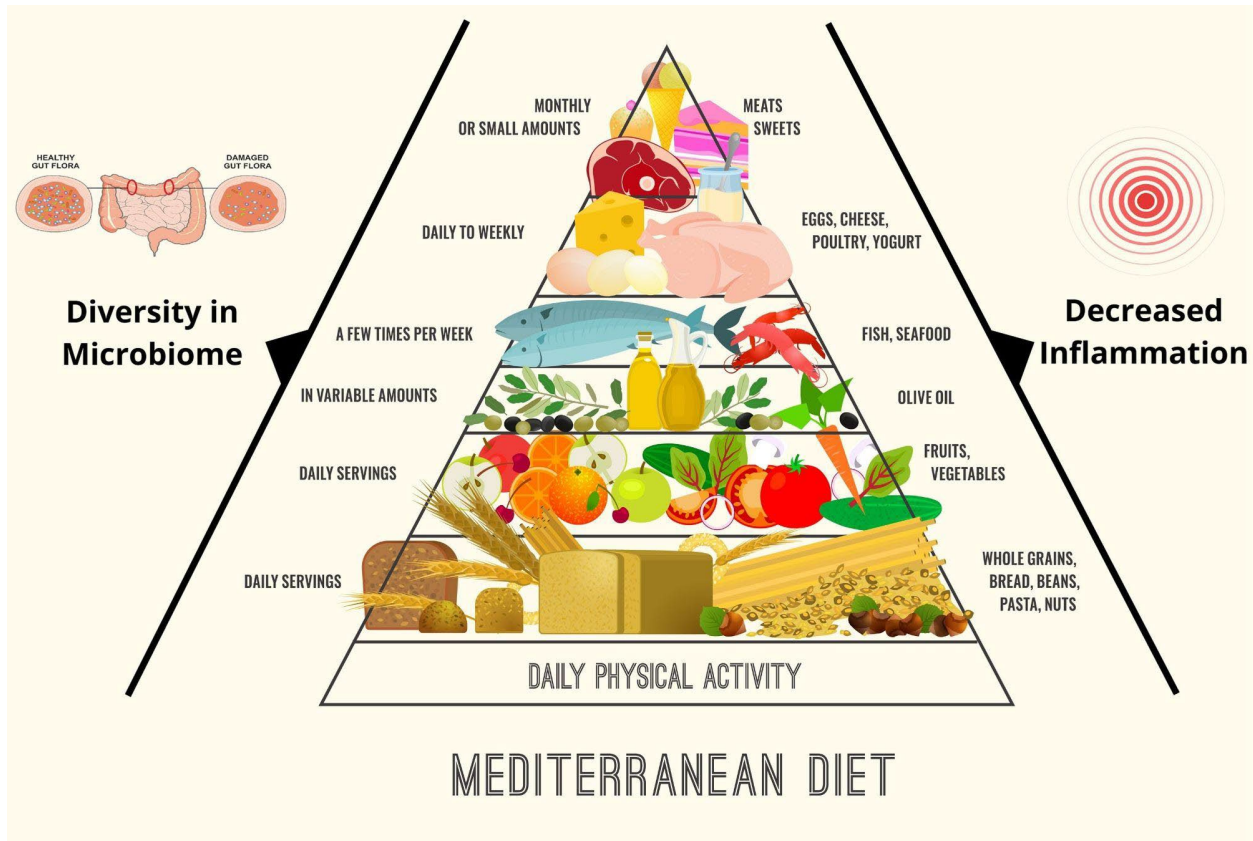
Exercise

Exercise is considered vital for maintaining a healthy body, fit mental state, and a stress-less spirit. It helps to control weight, combats health conditions and diseases, improves mood, and promotes better sleep to name a few. Most of us have extra time now and with just a little creativity, you can use what you have in your home to get a good workout, set up a circuit with 4 to 5 exercises and cycle through it a few times, get to that much needed stretching program you've been avoiding or take a class virtually. There are endless apps and online resources to choose from. If you have a question or specific topic you want to have covered, let us know.



Immune boosting foods

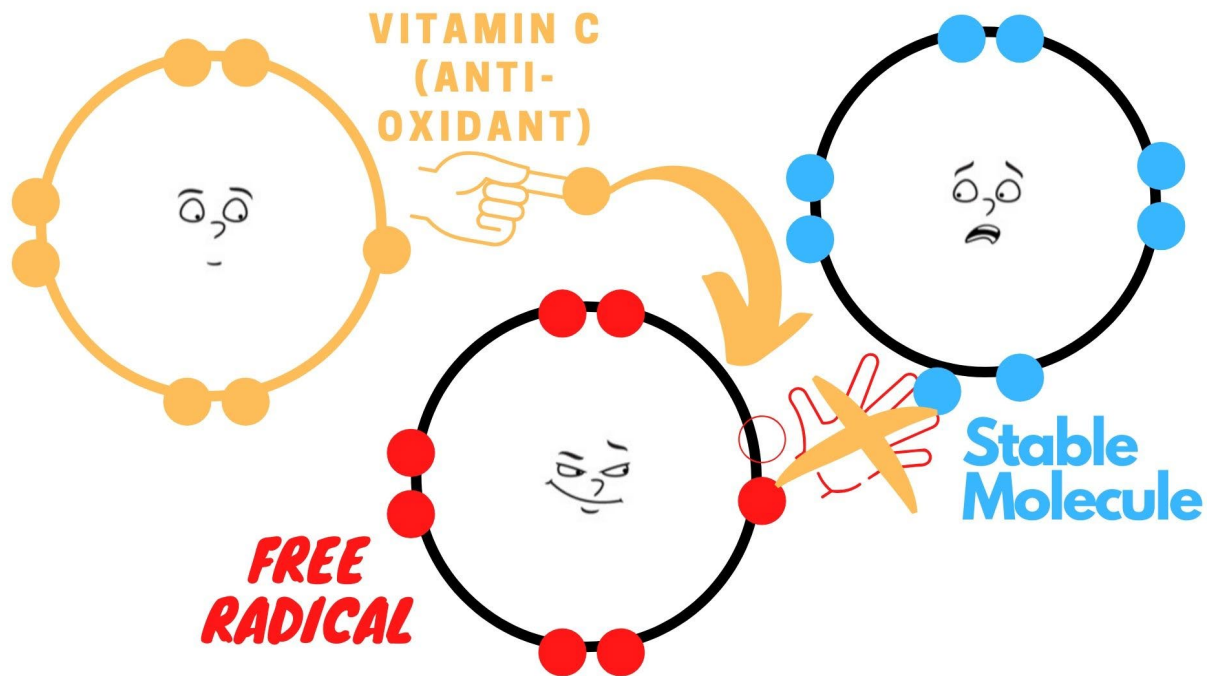
A wide variety of diverse foods, especially fruits and vegetables, and limiting ultra-processed foods including junk food can have a huge impact on your immune system's resilience. Following a Mediterranean diet has also been shown to improve gut microbiome diversity and reduce inflammation.



Vitamin C

An essential nutrient, vitamin C acts as an antioxidant. Antioxidants help fight free radicals, a type of unstable molecule known to damage the immune system. There's some evidence that vitamin C may be particularly helpful in boosting the immune systems of people under major stress.

- citrus fruits and juices (such as orange and grapefruit)
- kiwi fruit
- red and green peppers
- broccoli
- strawberries



Vitamin E



Like vitamin C, vitamin E is a powerful antioxidant. Research suggests maintaining ample levels of vitamin E is crucial for maintaining a healthy immune system, especially among older people.

- wheat germ oil
- almonds

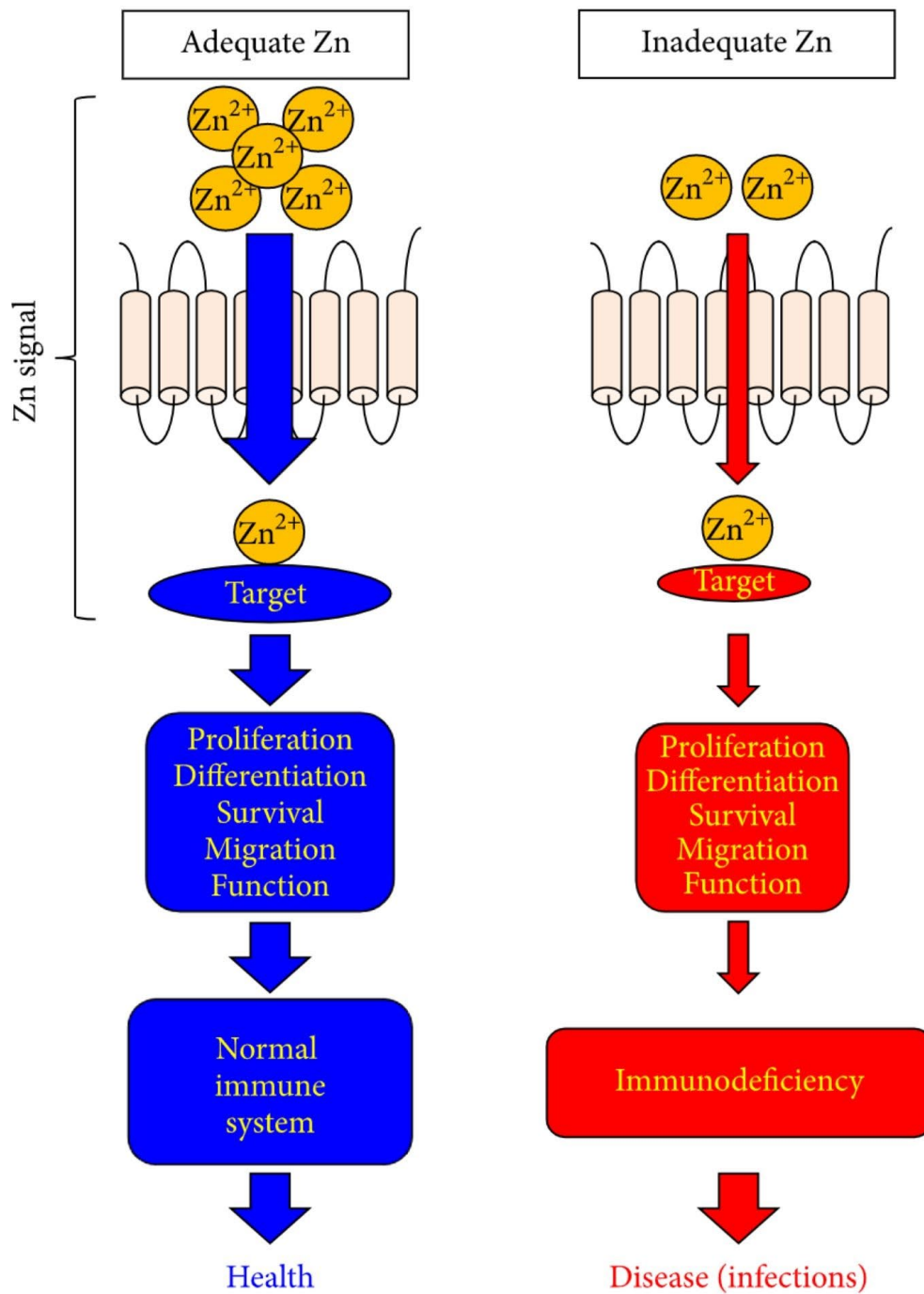
- sunflower seeds
- hazelnuts
- peanut butter

Zinc

Zinc is an essential mineral involved in the production of certain immune cells. The National Institutes of Health (NIH) caution that even mildly low levels of zinc may impair your immune function.² Here are some top food sources of zinc:

- oysters
- baked beans
- cashews
- raisin bran
- chickpeas

ZINC'S IMPORTANCE



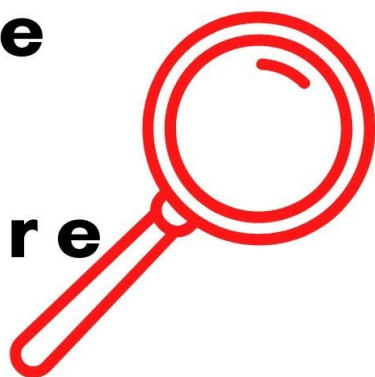
Adapted from: Hojyo, S. and Fukada, T., 2016. Roles of zinc signaling in the immune system. *Journal of immunology research*, 2016.



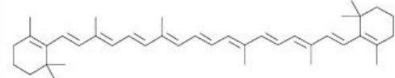

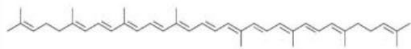

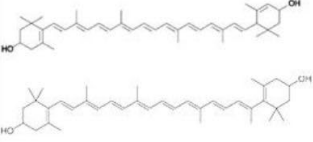

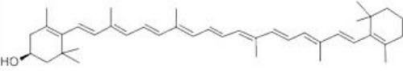

Carotenoids

Another type of antioxidant, carotenoids are a class of pigments found naturally in a number of plants. When consumed, carotenoids are converted into vitamin A (a nutrient that helps regulate the immune system).

- carrots
- kale
- apricots
- papaya
- mango

Members of the Carotenoid Family and Where to Find Them



TYPE	CAROTENOID FOOD SOURCES
ALPHA-CAROTENE 	 <p>CARROTS, PUMPKIN, WINTER SQUASH, PLANTAINS, COLLARD GREENS</p>
BETA-CAROTENE 	 <p>CARROTS, LEAFY GREENS, SWEET POTATO, CANTALOUPE, PUMPKIN</p>
LYCOPENE 	 <p>TOMATOES, PAPAYA, GRAPEFRUIT, WATERMELON</p>
LUTEIN/ ZEAXANTHIN 	 <p>LEAFY GREENS, SUMMER/ WINTER SQUASH, BRUSSEL SPROUTS, YELLOW CORN</p>
BETA-CRYPTOXANTHIN 	 <p>PUMPKIN, PAPAYA, SWEET PEPPER, ORANGE, CARROT</p>

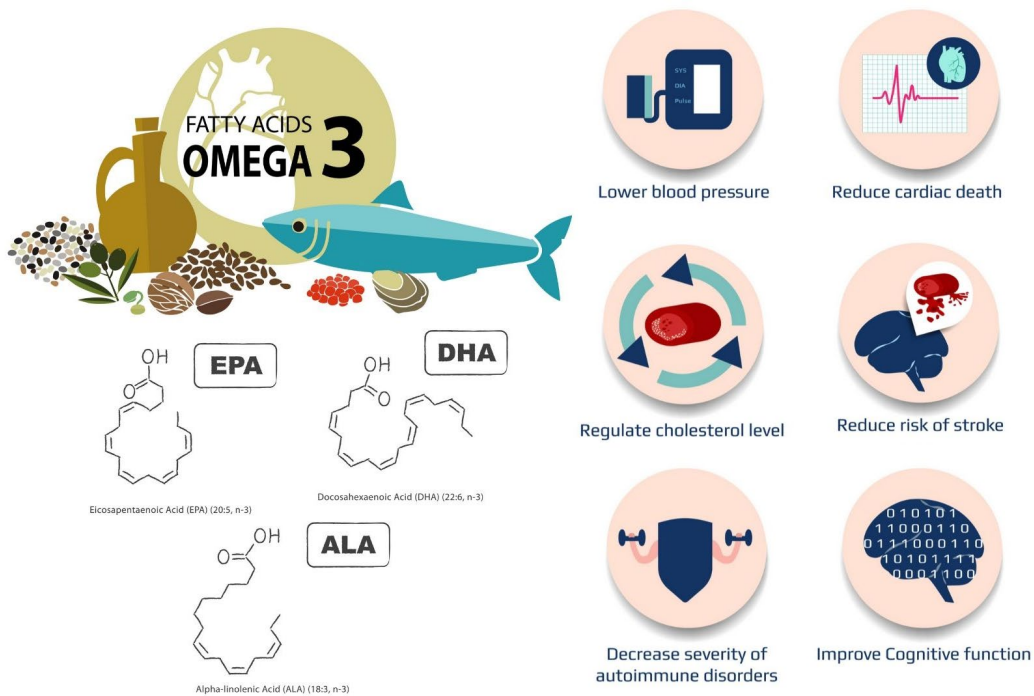
SOURCE: USDA DATABASE FOR FLAVONOID CONTENT OF SELECTED FOODS

Adapted from: American Institute for Cancer Research

Omega-3 Fatty Acids

Omega-3 fatty acids are a type of essential fatty acid known to suppress inflammation and keep the immune system in check.

- oily fish (including mackerel, tuna, salmon, sardines, herring, and trout)
- flaxseed
- walnuts



<https://www.verywellhealth.com/types-of-foods-to-boost-your-immune-system-89020>

Foods to Avoid

- Alcohol
- Salt
- Sweets
- Sugary drinks
- Artificial sweeteners or other additives
- Processed foods



Friendship



According to the Mayo Clinic, good friends are good for your health. They help you celebrate the good times and provide support during bad times. Friends prevent loneliness and give you a chance to offer needed companionship.

In addition, friends can:

- Increase your sense of belonging and purpose
- Boost your happiness and reduce your stress
- Improve your self-confidence and self-worth
- Help you cope with traumas, such as divorce, serious illness, job loss or the death of a loved one
- Encourage you to change or avoid unhealthy lifestyle habits, such as excessive drinking or lack of exercise



Friends play a significant role in promoting your overall health. Adults with strong social support have a reduced risk of many significant health problems, including depression, high blood pressure and an unhealthy body mass index (BMI). Maintain your friendships during this difficult and unknown time by socializing virtually.

To learn more about how to holistically improve your well-being during the current crisis, schedule a telemedicine appointment with our doctor, physical therapist, or behavioral therapist by e-mailing us at info@sleep-wellness.org or calling (609) 587-9944.