

EAT TO BEAT

Foods for Immunity During COVID-19

In my book **Eat to Beat Disease**, I outline five major health defense systems within the body: Angiogenesis, Regeneration, Microbiome, DNA, and Immunity. With the COVID-19 pandemic affecting communities across the world, it is more important than ever to take care of your immune defense system. Boosting the immune system through food is one of the most important things that you can do.

This guide contains five foods, with recipes, that are scientifically proven to improve immune function. These foods have been shown to boost a healthy immune response, and calm excess inflammation.

BROCCOLI SPROUTS

Broccoli sprouts are the early stages of a broccoli plant, and are typically 3-5 days old. They have very high concentrations of the nutrients found in mature broccoli, such as sulforaphane – a natural bioactive compound that helps to activate the immune system against viruses. In a clinical study where subjects were given a flu vaccine and a broccoli sprout shake, those who drank the shake proved to have more effective immune protection against the flu virus. (1)



Broccoli Sprout Smoothie

Ingredients:

- 1 cup soy milk (or other dairy or nondairy milk of choice)
- ½ banana
- ½ cup frozen mango chunks
- 1 handful broccoli sprouts (about ½ cup)
- 1 cup spinach
- 1 tsp chia seeds
- Optional: Add 1 tsp honey for sweetness

Directions:

1. Add all ingredients to a blender, and pulse until smooth..

MUSHROOMS

White button mushrooms may appear unassuming, but they pack a punch when it comes to immune support. They contain a type of fiber called beta-glucan that can stimulate the immune system to increase levels of an antibody called IgA. (2) IgA protects the body from viral infections.



Savory Mushrooms with Lentils

Ingredients:

- 3 tbsp olive oil
- 12 oz. white button mushrooms, sliced¹
- ¼ cooked lentils
- 2 tbsp San Marzano tomato paste
- 1 bunch flat leaf parsley

Directions:

1. In a large pan, heat olive oil over medium heat.
2. Add mushrooms and cook until brown and tender, stirring every few minutes.
3. Add lentils and tomato paste, and cook until warm.
4. Plate and top with parsley.

POMEGRANATE JUICE

Pomegranate juice has been shown to increase a beneficial bacteria in the gut called Akkermansia. (3) Akkermansia has numerous benefits, one of them being immune support. In fact, the powerful bacteria predict the best response to cancer immunotherapy of any gut bacteria. (4)

The sugar in pomegranate juice may be concerning to some - stick to the recommended amount of 1 cup per day, and pair it with a fiber-rich meal to slow down the sugar absorption.



Simple Pomegranate Spritzer (Non-Alcoholic)

Ingredients:

- 1 cup pomegranate juice
- ½ cup soda water
- 1 lime wedge
- 1 tbsp pomegranate seeds

Directions:

1. Fill a cup halfway with ice. Combine pomegranate juice and soda water and stir.
2. Squeeze the lime wedge and add to the drink.
3. Top with pomegranate seeds.

AGED GARLIC

Aged garlic can be made at home, or found in supplement form as an extract. Aged garlic has been shown to increase immune function in healthy people. In one study, participants given aged garlic extract had increased numbers of immune cells and even reported fewer cold and flu symptoms over the study period, and missed fewer days of work compared to the control group.

(5)



Homemade Aged Garlic

Ingredients:

- Whole, unpeeled, garlic cloves (however many you want to make)

Directions:

1. Set your slow cooker to the “warm” setting.
2. Place garlic bulbs in the slow cooker so that they are not touching each other.
3. Leave for 2-3 weeks, until cloves are soft and black. Remove from the slow cooker and store in an airtight container.

EXTRA-VIRGIN OLIVE OIL

Olive oil is unique in that it can increase immune function, while also calming inflammation. Olive oil contains hydroxytyrosol, which has been shown to increase the release of a cytokine that calms inflammation. (6) Another study in humans given olive oil found that olive oil increased the activation of immune T cells. (7)

I recommend choosing a cold-pressed monovarietal EVOO such as Koroneiki, Moraiolo, or Picual.



Homemade Herb Infused Olive Oil

Ingredients:

- 2 cups EVOO
- 2 sprigs thyme
- 2 sprigs rosemary

Directions:

1. Strip the herbs from the stems. Use a mortar and pestle to crush the herbs, releasing their oils.
2. Heat the olive oil in a small saucepan until it comes to a simmer. Add the herbs and steep for 2 minutes.
3. Turn off heat, cover the saucepan, and let sit for 2 hours.
4. Strain the oil using a fine mesh strainer. Bottle, and store in fridge.

References

1. Muller L, Meyer M, Bauer RN, Zhou H, Zhang H, Jones S, Robinette C, Noah TL, Jaspers I. Effect of broccoli sprouts and live attenuated influenza virus on peripheral blood natural killer cells: A Randomized, Double-Blind Study. PLoS One 2016 Jan 28;11(1):e0147742.
2. Jeong SC, et al. Dietary intake of Agaricus bisporus white button mushroom accelerates salivary immunoglobulinA secretion in healthy volunteers. Nutrition. 2012 May;28(5):527-31.
3. Li Z, et al. Pomegranate extract induces ellagitannin metabolite formation and changes stool microbiota in healthy volunteers. Food Funct. 2015 Aug;6(8):2487-95.
4. B. Routy et al., "Gut Microbiome Influences Efficacy of PD-1-Based Immunotherapy against Epithelial Tumors," Science 359, no. 6371 (2018): 91–97.
5. Nantz MP, et al. Supplementation with aged garlic extract improves both NK and $\gamma\delta$ -T cell function and reduces the severity of cold and flu symptoms: a randomized, double-blind, placebo-controlled nutrition intervention. Clin Nutr. 2012 Jun;31(3):337-44.
6. Bonura A, et al. Hydroxytyrosol modulates Par j 1-induced IL-10 production by PBMCs in healthy subjects. Immunobiology. 2016 Dec;221(12):1374-1377.
7. Rozati M, et al. Cardio-metabolic and immunological impacts of extra virgin olive oil consumption in overweight and obese older adults: a randomized controlled trial. Nutr Metab (Lond). 2015 Aug 7;12:28.

Limited Edition
Eat to Beat Disease Foods For Immunity During COVID-19
Copyright © 2020. William W Li
All rights reserved