# **Boost Immunity With These 7 Foods!**

By Ben Greenfield

"I need a stronger immune system."

"Boost your immunity."

"I'm immune to that."

We tend to throw words like immune and immunity around quite a bit, don't we? But what exactly is the immune system, and what does it mean to boost immunity?

# What Is The Immune System?

Your immune system is responsible for fighting foreign invaders, including pathogenic bacteria and viruses, and for destroying internal threats such as abnormal cells. Your ability to interact with the world around you and remain healthy is largely dependent on the healthy functioning of the immune system.

You can think of your immune system as a finely tuned orchestra—like an orchestra, the immune system contains a host of different instruments that work together with one harmonious goal: to protect you from foreign invaders that can cause damage to your body. The players of this orchestra include immune cells; physical barriers such as the mucous membranes of the respiratory system and the gut; and the messenger molecules that either activate immune cells to action or tell them to stop. But just like an orchestra, when one player falls out of tune, so does the whole orchestra. Supporting your immune system (or "boosting immunity") means supporting all the sections in the orchestra, and one way you can do this is with food!

What you feed your body plays a key role in how well your immune system functions—poor nutrition has been shown to result in increased infections and slow healing from infections and injury, while certain foods give your immune system a boost by providing it with the nutrients it needs to function at its best.

# Seven Foods That Support Your Immune System

OK, now that you know your immune system is highly dependent on good nutrition, it's time to begin thinking beyond blueberries, vegetables, and chicken broth, and explore other foods that can give your immune system a boost.

Let's delve right into these seven foods, shall we?

#### 1. Fermented Foods

If you are serious about boosting your immunity, then you must add fermented foods to your diet. Fermented foods are teeming with beneficial bacteria that have an extremely beneficial effect on your gut's immune system, your first line of defense against pathogens. Fermented foods also boost antibody activity. Some good choices include kefir, kimchi, kombucha, yogurt, miso, tempeh, pickles, and sauerkraut. Look for ones that contain live cultures in the refrigerated section of the store.

#### 2. Organ Meats

Organ meats such as liver, kidney, heart, and other "scary" parts of an animal are concentrated sources of vitamins A, D, E, and K, B12, omega-3 fatty acids, selenium, and zinc, all of which provide your immune system with tons of concentrated support. When it comes to organ meats, always choose organic and grass-fed/pasture-raised—research has shown that pasture-raised animal products are much higher in these nutrients compared to conventional animal products.

Can't stand the taste of organ meats? You'd be surprised at how easy they are to prepare. For example, you can soak liver in milk or lemon juice overnight to remove any "gamey" flavor, dredge it in a couple of whisked eggs, drag it through coconut or almond flour, sauté in coconut oil, and serve with red onions (another good immune system booster chock full of quercetin), mushrooms, and bacon. Bon appétit!

# **3. Coconut Products**

Coconut oil is rich in lauric acid, which the body converts to monolaurin. Monolaurin is the compound found in breast milk that strengthens a baby's immunity, and a great deal of research has been done establishing the ability of lauric acid to enhance adult's immunity too. This medium-chain fatty acid (MCFA) has the ability to disrupt the lipid membranes of offending organisms and bacteria, rendering them ineffective.

When selecting coconuts and coconut oil products, make sure you choose organic versions that are unrefined, unbleached, and made without heat processing or chemicals. One of my favorite, little-known ways to consume coconut products is with the incredibly tasty coconut manna, which is a mix of coconut meat and coconut oil that contains an incredible, flavorful, buttery profile perfect for spreading on crackers or eating by the spoonful.

### 4. Garlic

The stinky garlic plant is incredibly beneficial to your immune system because it produces a tri-fold effect: it's antibacterial, antiviral, and antifungal. I am a firm believer that for optimal immune system function, you should be eating garlic nearly every day. One of the best things about garlic is, unlike antibiotics, bacteria, viruses, and yeast build up no resistance to it.

#### 5. Shrooms

Mushrooms strengthen your immune system because they are rich in protein, fiber, vitamin C, B vitamins, calcium, and other minerals. Mushrooms also contain powerful compounds called *beta-glucans*, which are well-known for their immune enhancing properties. The beta-glucans in medicinal mushrooms (especially reishi, shiitake, and maitake versions) are especially notable for their ability to activate and modulate immune system cells.

Beta-glucan also enhances immunity through a variety of other mechanisms, many of which are similar to those of the popular immune-boosting herbs echinacea and astragalus root. For example, beta-glucans bind to macrophages and other scavenger white blood cells of your immune system, thus activating their anti-infection activities.

#### 6. Algae

If you visit BenGreenfieldFitness.com (my blog and website) and do a search for "algae," you'll find a host of articles and podcasts I've produced about this amazing, slimy green superfood. Take one version of algae for example...chlorella.

As foods go, chlorella is nearly perfect. It is a single-cell freshwater algae that acts as an extremely efficient detoxification agent by binding to toxins, such as mercury and other heavy metals, and infectious agents, and then carries them out of your system. The chlorophyll in chlorella also helps you process more oxygen, cleanses your blood, and promotes growth and repair of your tissues. You can find chlorella in powder and chewable form, and it can be used in smoothies and shakes, sprinkled on salads or soups, or simply eaten as is.

# 7. Dirty Vegetables

When it comes to fighting off pathogens, you simply can't do any better than eating an enormous variety of fresh, organic vegetables for the vitamins, minerals, antioxidants, and enzymes they contain. CLF 08/16 2

However, when I'm eating vegetables—especially if they're from an organic source—I actually eat them "dirty," picked fresh from the garden or the produce aisle, so that I can get all the beneficial soilbased probiotics that tend to accumulate on the surface of organic vegetables (and fruits). Don't be afraid of dirt! The good bacteria support your immune system, and as long as you're eating organic, you don't need to worry about pesticides.

So now that you know diet plays a key role in supporting a healthy immune system, I encourage you to explore some of those foods you might not currently be regularly including in your diet, especially these seven immune-boosting foods!

#### **Prime Your Immune System for the Flu Season with Cranberry!** By Lindsay Wilson

For a long time now, the humble cranberry has been relegated to an oft-ignored condiment at Thanksgiving, but it appears the time has come for this little fruit to shine. A growing body of research is revealing that the cranberry has some unique and powerful properties when it comes to immunity.

Recent studies have found that compounds in cranberries interfere with the flu virus' ability to replicate and establish an infection, in addition to reducing the symptoms of the flu. "Cranberries are incredibly rich in proanthocyanidins, which exert a regulatory effect on human immune cells, priming them to fight off an infection," Jonathan Clinthorne, PhD, whose doctoral work focused on nutritional immunology, explains. Clinthorne says that these proanthocyanidins seem to be especially beneficial to our immune barriers—the GI tract, the urinary tract, and the mouth. "These are the places where infection can take hold, so if we strengthen these areas, we can prevent viruses and bacterial infections from taking hold in the first place."

The results of one human study support this idea: the proliferation of a specific type of T-cell—an immune cell found in the immune barriers and a first line of defense against infection—was nearly five times higher after 10 weeks of daily consumption of a cranberry beverage.<sup>i ii</sup>

Researchers have also discovered that cranberry juice can inhibit the norovirus (the dreaded stomach flu) from adhering to human cells, the essential first step in initiating an infection.<sup>iii iv</sup> Cranberry has been shown to have similar anti-adhering effects on certain types of bacteria, including *E. coli* and *Staphylococcus aureus (staph)*.<sup>v vi</sup>

The most effective way to use cranberry is as a preventative; i.e., start taking it *before* you get sick. "Proanthocyanidins only stay in the body for about 6-12 hours, so it should be taken twice daily to maintain consistent levels," Clinthorne says.

References Available Upon Request