

Immune Boosting Tips



The immune system is a term that covers a complex system in our body which includes organs, cells and proteins that protect the body from external infections as well as internal cell changes that could cause problems. You'll often hear the word antioxidant associated with immune health. These are natural chemicals found in plant-based foods. The reason they are so important for our health is due to the role they play in protecting the body from

excess free radicals. Free radicals can cause oxidative damage to our body, much like the brown tinge that occurs when you leave half an apple exposed to the air. Free radicals can be naturally occurring by-products of metabolic processes, such as digestion, exercise and stress. Our bodies produce our own antioxidants to combat this, but we also need a healthy amount in our diet in order to top up our internal supplies.

Immune systems can sometimes function below par, for many different reasons, but no matter the cause it's important to eat a diet that supports optimal immune function. However, a diet alone is not usually enough if other lifestyle factors are not addressed at the same time. Stress and certain habits, such as smoking and drinking too much place a huge strain on our immune system because they give the body so much to do in terms of clear up. The body is only able to do so much before we start to see the effects. Other factors that can impact the immune system include pharmaceutical drugs and treatments for certain diseases, including cancer. In this case, it's still important to focus on the factors that you can control and know that they are giving your body more resilience to any challenges.

Nutrition

Fruit & Vegetables: These are the best source of antioxidants by far, so it's important to make sure you're eating plenty of fruit and vegetables. Go for a wide variety of colours, as each colour contains a different spectrum of phytonutrients. In terms of numbers, the more the better but I'm aware that there can be other factors limiting how many fruit and vegetables some people are able to eat in one day. Ideally, if you can get to 8-10 portions a day this is a great aim. Of course, organic produce is better, as this reduces the number of toxins the body has to deal with and therefore reduces the pressure on the immune system. Again, it's a case of doing what you can. You can always use a vegetable wash when you are not able to buy organic.

Vitamin C: All fruit and vegetables are high in antioxidants, but in particular it's good to focus on those that are especially high in vitamins C, which is one of our key antioxidants. Whilst

animals are able to produce this themselves, we have to get it from our diet. Fruits and vegetables high in vitamin C include; all kinds of leafy green vegetables, broccoli, Brussels sprouts, peppers, cauliflower, all berries, Kiwis, citrus fruits, papaya and cantaloupe.

Beta-carotene: Another important antioxidant that is important for boosting our immune cells. Fruit and vegetables high in beta-carotene include carrots, pumpkin, squash, sweet potatoes, apricots and mangoes.

Herbs and spices: These have an even greater concentration of immune boosting nutrients than fruit and vegetables. Garlic in particular, which contains high levels of sulphur, is known for its ability to increase white cell count and natural killer cell activity. At the same time, it has incredible antimicrobial effects, and so protects the body against pathogens. All of this together serves to be a fantastic boost for the immune system.

Nuts and seeds: These tend to be very high in vitamin E, another important antioxidant. Vitamin E not only supports the stimulation of natural killer cells, which help destroy cancer cells and germs, but it also boosts antibody producing B cells. Nuts and seeds are not always easy to digest, but one tip is you can soak them in water overnight and then add them to porridge or smoothies. You don't need many in one go either.

Protein: Most people do get enough protein in their diet, but it's worth being aware of the role protein plays in our immune system. Proteins provide the amino acids building blocks responsible for the synthesis of immune proteins such as antibodies. Good sources of protein to focus on include lean meat, fish, lentils, nuts and seeds.

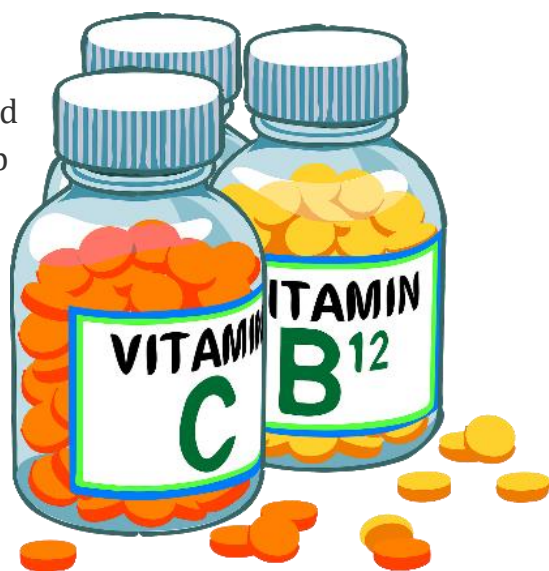
Supplements to Support the Immune System

Although we should be able to get all the nutrients we need from our diet, sometimes even with a good diet we end up lacking in a couple of key nutrients. Whilst I don't advocate spending a fortune on antioxidant powders, as these have actually been shown to not only not work but sometimes be counter-productive, I do advocate ensuring that some of the basic nutrients are topped up. The ones to be aware of are as follows:

Zinc - supports the body in producing more white blood cells.

vitamin D - mediates our inflammatory responses and also plays a role in activating our immune defences.

vitamin B12 and folate – B vitamins have many different roles, but in terms of our immune health folate is required for cell-mediated immunity (i.e. T cells). B12 plays a role in the development of white blood cells, and B12 deficiency has been shown to lower immune response.



Lifestyle Factors to be Aware Of

Whilst it's impossible to remove all factors that impact our immune system in a negative way from our lives, it's good to be aware of some key lifestyle factors and choices:

Stress: Our stress response is completely natural, but what is not natural is the constant stress that many people are exposed to. This causes prolonged high levels of the stress hormone, cortisol, which will eventually create oxidative damage and inflammation. So managing stress is key to any health plan.

It's worth noting that a recent review into the effects of meditation and mindfulness on the immune system found some very positive results. These included not only reduced inflammation markers but actually increased numbers of CD 4 cells, a type of white blood cell. If meditation isn't for you, remember that these results also reflected mindfulness practices so it doesn't mean that you literally have to sit and meditate for X amount of time. Just being more aware of being in the moment, becoming aware of your breath and grounding yourself, has a huge impact on our body.



Smoking: The dangers are well documented, and cigarettes contain many chemicals which cause oxidative damage to the body. Along with this, our bodies have to deal with toxins from environmental pollution and exhaust fumes as well.

Processed/Ultra-processed Foods: The standard diet includes large quantities of processed foods, high in sugar and partially hydrogenated vegetable oils, both of which are thought to contribute to oxidative damage and inflammation. There are also arguments to be made for the inflammatory effect of eating a diet high in refined grains.

It's important to state here that I don't advocate clean eating diets, or completely cutting certain foods out, even if they aren't great for our health. I feel that having awareness that certain foods do impact our health negatively if we eat too many of them can be useful, but bear in mind that if you're eating a diet that is high in immune boosting foods, then it's absolutely fine to have some foods that aren't so great. Humans tend to do much better through positive reinforcement and focusing on what to include, rather than having a long list of things to exclude. Remember, it's all about balance!

Reference:

<https://pubmed.ncbi.nlm.nih.gov/26799456/>