

What is Immune Modulation?

It's the ability of specific nutrients to promote healthy immune function and stimulate the immune cells to be activated. Nutrients come from eating specific foods and avoiding deficiencies, which may downregulate your immunity to viruses. Specifically important are;

Vitamin C (Ascorbic acid)

- Essential for all functions of the immune system, is antiviral and is an antioxidant for cellular protection.
- Boosts the body's ability to resist infection under stressful conditions
- Essential to build collagen, the protein component of all blood-vessels, tissues, ligaments and bones, protective against viral tissue damage
- Vitally important to provide cellular energy to fight against immune downregulation and regenerates other vitamins
- Plays a significant role in the synthesis of neurotransmitters for brain function and stability of mood.
- Sources: Blackberries, Broccoli, Brussels sprouts, citrus fruits, green peas, guava, kiwifruit, all leafy greens, mango, papaya, red capsicum, sweet potato, tomatoes

Zinc

- An essential multitasking micronutrient in immune response, from skin membrane barrier integrity to regulating lymphocytes.
- Activates anti-viral activity, cellular and humoral immunity and improves CO₂ respiration in the lungs.
- Required for normal functioning of neutrophils, natural killer cells
- Deficiency impairs immune response and increases susceptibility to infection by dysregulating intracellular infection control, cytokine production and phagocytes.
- Required in greater quantities when the body is in stress
- Improves immunoglobulins mobility from the blood to the intracellular compartments of the lymphocytes (infection fighters).
- Can be used as a preventative as it exerts an anti-viral effect by establishing and protecting cell membranes by inhibiting viral replication
- Studies show long term use has benefits for respiratory infections and cell mediated immunity.
- Sources: Avocado, garlic, pine nuts, poppy seeds, pumpkin seeds, sesame seeds, tahini, sunflower seeds, adzuki beans, soybeans, tempeh, tofu, quinoa, wild rice, beef, ginger, whole grains.