Boosting Your Immune System Naturally

Your immune system is the body's defence against sickness and disease. Infectious diseases are having a resurgence and to remain healthy we have to act to resist them, otherwise we are likely to fall victim. Nutrition plays a key role in boosting the immune system.

While malnutrition or undernutrition is known to be the most frequent cause of immune deficiency, it is now recognised that marginal deficiencies of nutrients as well as the effects of overnutrition can significantly impair the immunity. Colds and infections are more prevalent today than they have ever been. We live in large, crowded cities, work and social commitments brings us into contact with many people. These days, most people tend to be more casual about respiratory infections, they are more likely to carry on everyday the symptoms. Furthermore, work demands may not allow the luxury of appropriate rest and isolation for speedier recovery.

Almost all respiratory infections are caused by airborne viruses carried from one person to another in tiny droplets of water in expired air. Cold viruses simply colonise the surface of the upper respiratory membranes, the nose, throat and sinuses causing nasal congestion, sore throat, coughing. Influenza viruses cause more severe symptoms with fever.

Positive action must be taken to improve the general immune status of the body. Nutrients which have important functions in immunity include:

Vitamin A: is known to enhance the immune process through antibody response, it is a potent anti-viral and promotes thymus growth.

B5 and B6: B6 deficiency may lower cellular and humoral immunity. The synthesis of lymph tissue is impaired which leads to decreased thymic hormone activity, reduction in quantity and quality of antibody production, and abnormalities in immunoglobulin production. B5 deficiency is believed to inhibit the stimulation of antibody producing cells. B5 and B1 provide adrenal support.

Folate and B12: These ensure proper white cell production and lymphocyte response.

Vitamin C and Bioflavonoids: Vitamin C has a vital role in many immunologic mechanisms. It improves phagocytic and chemotactic activity. It is required in the production of leucocytes and lymphocytes through DNA synthesis. With increased anti-body response, significant increases in plasma concentrations of serum immunoglobulin A, M levels and interferon are seen. While vitamin C may not prevent the common cold in all cases, it does have beneficial effects on the cold. Vitamin C is most effective when used ***immediately*** upon detection of the earliest signs of infection. During infection and early stages of recovery, the body uses vitamin C faster than at other times. For acute infections, use vitamin C until bowel tolerance, that is the level tolerated without giving the symptoms of diarrhoea. It is important that Bioflavonoids be used with vitamin C to potentiate its effectiveness. Bioflavonoids have anti-viral activity and can interfere with viral RNA and protein synthesis.

Vitamin E: enhances T-helper cell activity, prevents free radical damage, increases anti-body response and serum immunoglobulin levels. Is particularly important in auto-immune and hypersensitivity reactions. Along with vitamin C it has a role in clearing the debris produced during infection.

Iron: Even marginal iron deficiency which do not lower haemoglobin levels can influence the immune system. Iron is required for the production of enzymes to destroy bacteria. Para-doxically, iron is an important nutrient to bacteria as well as humans. During infection, one of the body's non-specific defence mechanisms to limit bacterial growth is to reduce plasma iron. The bactericidal effects of serum are eliminated by the addition of iron to the serum. Such observations suggests that iron supplementation is probably not recommended during acute infection. However, in patients with impaired immune function, chronic infections and subnormal iron levels, adequate supplementation is essential.

Zinc: The crucial role of zinc in immunity is well established. Zinc is required in the activity of over seventy enzymes in the body, including those that have specific immune roles. Zinc also protects against iron-catalysed free radical damage. Studies show that zinc inhibits the growth of several viruses, including rhino, toga, herpes simplex and vaccinia virus. Zinc gluconate tablets dissolved in the mouth can significantly reduce the average duration of the common cold by 7 days and reduce symptom severity. Osmotic transport of zinc across the buccal membranes suppresses nerve impulse leading to rapid relief of symptoms. Secondly, elevation of Zinc concentration around the nasal cavity appears to inhibit the replication of the cold viruses (rhinovirus HRV) by blockage of HRV docking with intercellular adhesion molecule binding sites. Zinc reduces the severity of cough, nasal discharge and congestion.

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Magnesium and Manganese: Magnesium is essential for the produc-tion of lymphocytes. Animal studies demonstrate an ability for manganese to increase natural killer cell activity.

Echinacea Augustifolia: an immunostimulant, enhancing resistance to both viral and bacterial infections. Its activity has been attributed to isobutylamides and polysulfides which have strong phagocytic function.

Garlic: garlic is rich in allyl-containing sulfides and polysulfides which have potent immune stimulating potential and is effective against the influenza infection.

Elder flowers: contains essential oils which improve resistance, with anticatarrhal and expectorant properties.

For optimal Nutritional Support: <u>at the fist sign of infection</u> take: *vitamin C, Bioflavonoids, antioxidants, and immune herbs and zinc gluconate lozenges three times daily*. Ensure adequate magnesium, manganese, iron, and B vitamins.

- Avoid pollution
- Avoid excessive dry air
- At the first sign of infection, rest and keep warm. Avoid vigorous activity in cold air, the chill will exacerbate the virus and hinder the body's efforts.
- Keep your fluid intake up. Hot lemon and honey drinks are excellent.
- For sore throats gargle with salt water, listerine, or dilute tee tree oil. Suck zinc gluconate lozenges.

Other Types of Infections

Herpes: The herpes virus is very common. Herpes simplex Type I causes sores on the upper part of the body. These are commonly seen as cold sores (often on the margin of the lip). The virus can affect other parts of the body including the eyes. Herpes simplex Type II or Herpes genitalis, cause sores on the lower part of the body, particularly the genitals. Herpes zoster causes the condition chicken pox. It can recur as shingles when the immunity is low.

Chronic Fatigue Syndrome (CFS)

Epstein-Barr (EB) virus is a member of the herpes family. It causes glandular fever or infectious mononucleosis. The virus attacks the B-cells of the immune system. It can cause a long illness with swelling of the glands, recurrent fever, fatigue, poor concentration and depression. Past infection can only be inferred by the appearance of antibodies to the virus. The crucial factor is the immune status of the person at the time of infection. Cytomegalovirus (CMV) is less well known and produces similar symptoms to glandular fever (EB virus infection).

Nutrient Options

Lysine is beneficial for cold sores and Herpes-related infections. A diet low in arginine should be adhered to. Shingles may be helped with **B12 and folic acid**.

For Glandular Fever, Ross River Fever, persistent viral infections and CFS: Investigate dietary sensitivities, include nutrient options above and coenzyme Q10, B1, B5, B12.

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