



Immuno Multi™ is an advanced daily multi-antioxidant and multi-vitamin formulation developed to support the immune system and provide nutrients necessary for superior cellular defence and repair - the ideal core nutrition platform for adults. Immuno Multi™ is the next generation multivitamin developed from strong research and formulated to make a difference. It is a premium, daily 'multi' that can help you live a longer and healthier life. "It's what's inside that counts!"

Recommended Use

Immuno Multi™ is a multivitamin/ mineral /antioxidant for the maintenance of good health and a source of antioxidants to maintain healthy immune system function.*

**This product is only indicated for the Recommended Use above. It is not indicated for the uses listed below, which are meant to be assessed and interpreted by a qualified healthcare practitioner.*

Clinical Considerations

Immune system support
As a high potency multivitamin
Broad spectrum antioxidant support
Cellular repair
Daily "gentle" liver cleanse

Medicinal Ingredients

Each capsule contains:

Vitamin A (acetate)	1,667IU
Beta carotene (natural)	1,667IU
Vitamin C (ascorbic acid)	167mg
Vitamin D3 (cholecalciferol)	200IU
Vitamin E (d-alpha, natural)	50IU
Mixed tocopherols (30%: α , β , γ , δ)	17mg
Vitamin K1 (phytonadione)	13mcg
Vitamin B1 (thiamine HCl)	10mg
Vitamin B2 (riboflavin)	10mg
Vitamin B3 (nicotinic acid)	17mg
Vitamin B5 (calcium d-pantothenate)	10mg
Vitamin B6 (pyridoxine HCl)	13mg
Vitamin B7 (biotin)	100mcg
Folic acid (B9, folate)	333mcg
Vitamin B12 (methylcobalamin)	33mcg
Magnesium (bisglycinate)	10.7mg
Zinc citrate (34% elemental)	3.8mg
Selenium yeast (0.2% elemental)	33.5mg
Manganese citrate (20% elemental)	0.34 mg
Molybdenum (sodium molybdate)	13mcg
Vanadium (vanadyl sulfate)	10mcg
N-acetyl-cysteine (NAC)	67mg
Green tea extract (80% catechins)	67mg
Resveratrol (polygonum, root)	40mcg
Alpha lipoic acid	33mg
Grape seed extract (95% OPCs)	33mg
Lycopene (tomato extract)	1mg
Lutein (marigold extract)	67mcg
Curcumin (tumeric, 95% curcuminoids)	64mg
Ellagic acid (pomegranate extract)	13.2mg
Quercetin	33mg

Non-Medicinal Ingredients: Vegetable-grade magnesium stearate (1%), vegetable capsule.

Directions: Adults - Take three (3) capsules daily with food or as directed by a healthcare practitioner.

Cautions and Warnings

As with any natural health product, you should consult a healthcare practitioner on the use of

this product especially if you are taking any medication including blood thinners, nitroglycerin, cyclosporine or have a medical condition including diabetes, gallstones, stomach peptic ulcer, excess stomach acid, iron deficiency, a history of non-melanoma skin cancer, or if you have a liver disorder or develop symptoms of liver trouble (such as abdominal pain, dark urine or jaundice). Do not use if you are pregnant or breastfeeding. Do not use if you have bile duct obstruction. People sensitive to nicotinic acid may experience flushing of the skin that is generally mild and transient. Zinc supplementation can cause a copper deficiency. Do not use if seal is broken. Keep out of reach of children.

Ingredient Description

Vitamin A is a major player in the task of maintaining a healthy immune status in individuals. It is important to note that the body needs adequate protein, vitamin E and zinc in order to fully metabolize and utilize the vitamin A. Immuno Multi™ contains both vitamin E and zinc. Vitamin A deficient individuals have a much greater susceptibility to infectious diseases and tend to have higher mortality rates. Supplemental absorption of vitamin A is excellent - being available for absorption at a rate of 80 to 90 percent (Murray, 1996).

Beta carotene plays a very important role in the immune system. Beta carotene is believed to protect the DNA in the nucleus of the cell by decreasing the bonding of chemicals to the membrane around the nucleus. Beta carotene is also an antioxidant that scavenges free radicals. Beta carotene has been shown to be deficient in a large number of smokers who develop lung, throat, prostate, skin and colon cancer.

Vitamin C strengthens and protects the immune system by stimulating the activity of antibodies and immune system cells such as phagocytes and neutrophils. Numerous double-blind, placebo-controlled studies looking at regular use of vitamin C confirm that it can reduce symptoms of colds and shorten the length of illness. Vitamin C also supports the cardiovascular system by protecting tissues from free radical damage and it assists the nervous system by converting certain amino acids into neurotransmitters. This vitamin also contributes to the maintenance of healthy bones, the prevention of periodontal disease and the healing of wounds.

Vitamin D3 is both a vitamin and a hormone. It is a vitamin because your body cannot absorb calcium without it and it is a hormone because your body can actually manufacture it in response to your skin's exposure to sunlight. People who are not exposed to sufficient sunlight due to geography, shelter, clothing or heavy sunscreen use, require dietary intake of vitamin D. Vitamin D has been shown to have various health benefits ranging from increasing bone strength to reducing the risk of osteoporosis, prostate cancer and colon cancer. Vitamin D is the main regulator of calcium balance in the body. It is vital for skeletal development and bone mineralization.

Vitamin E (natural) is a fat soluble antioxidant that helps to reduce oxidation of fat and prevents the breakdown of other nutrients by oxygen. It is also a known vasodilator and normalizes the clotting mechanism in the body. Vitamin E is available in many different forms, both natural and synthetic. Natural forms of vitamin E are designated with a 'd-' and synthetic forms are designated with a 'dl'-. The natural form of vitamin E is used in the Immuno Multi™ formulation.

Mixed tocopherols (alpha beta, gamma, delta tocopherols) There are many different natural tocopherols that show vitamin E activity. The most active, with respect to antioxidant action, is the d-alpha tocopherol, but the beta, gamma and delta tocopherols are now the focus of study and interest with respect to heart disease prevention and antitumour activity. Gamma tocopherol has been found to be the most effective tocopherol at inhibiting cancer cell growth.

Vitamin K1 is a fat-soluble vitamin and is important for blood clotting. Vitamin K is also necessary for building and maintaining healthy bones, as it is responsible for the conversion of bone protein, osteocalcin, into its active form. Taking extra vitamin K is not a cause for concern - it will not cause excessive clotting. The best source for vitamin K in humans is the 'friendly' bacteria in the intestinal tract. Unfortunately, antibiotics, rancid oils and fats, x-rays, radiation, aspirin, air pollution and freezing foods all destroy vitamin K. Individuals who benefit from supplemental vitamin K are those who bruise easily, or people with rheumatoid arthritis, as it may reduce irritation in the synovial lining of the joints.

The B vitamins are essential for proper energy production in the brain and function in the body as building blocks for coenzymes. The B vitamins play an important role in cellular metabolism, breaking down fats and carbohydrates into usable forms of energy for the body. They are essential for growth, reproduction and physiological functions like digestion, hormone/ fat/ cholesterol synthesis, blood sugar regulation, nerve transmission and toxin elimination.

Magnesium is an extremely important macro-mineral. It is involved in literally hundreds of enzymatic reactions in the body and it is critical for cardiovascular functioning and energy. Decreased blood levels of magnesium are directly linked to high blood pressure, insomnia, kidney stones, heart disease and heart attacks (due to coronary artery spasm). Magnesium plays an important part in helping to offset premenstrual syndrome (PMS), asthma and anxiety as well. Most people do not get enough magnesium. Magnesium glycinate has been proven to be a highly absorbable form of magnesium that is extremely gentle on the bowels.

Zinc is critical to the immune system and the detoxification of chemicals and metabolic irritants (Haas, 1992). Zinc is also important for the synthesis of DNA and RNA and has some antioxidant effects. It plays a very important role in cell membrane structure and function.

Selenium is a mineral that works synergistically with vitamin E in carrying out antioxidant and immuno-stimulating functions. Selenium itself is incorporated into glutathione, an enzyme that helps protect cells from free radicals. Selenium is also thought to offer protection against heart disease. Studies have shown that an increased incidence of strokes and other cardiovascular problems occur in larger numbers of those with lower selenium levels. Low levels of selenium are associated with higher cancer rates.

Manganese helps to catalyze many biochemical reactions. It is very important for the utilization and digestion of foods – especially proteins. It may also function as a protective antioxidant as part of the enzyme superoxide dismutase (SOD). Manganese deficiency may cause decreased glucose tolerance and decreased functioning of the pancreatic cells. Food manganese levels can vary greatly due to soil deficiencies and refining and milling of grains (nearly 90% is lost).

Molybdenum is critical to several enzyme systems including the metabolism of uric acid and the freeing of iron from the liver so that the body can use it. Molybdenum plays a very important role in detoxifying sulfates and nitrates (known cancer-causing chemicals), especially in the colon.

Vanadium supports bones and teeth and is important in the synthesis of collagen. Low levels of vanadium (and molybdenum) are associated with spinal degeneration (for e.g. ankylosing spondylitis). In animal studies, vanadium has been found to function in a similar way as insulin by helping to maintain blood glucose levels and coaxing cell receptors to be more sensitive to insulin.

N-acetyl-cysteine (NAC) is a specially modified form of the dietary amino acid cysteine. It is the precursor to a powerful antioxidant called glutathione (a premier anti-toxin and immune support substance). Glutathione is found throughout various cells, particularly in the liver, thus

it has a vital role in the liver's detoxification of harmful substances. Supplementing with NAC seems to raise tissue levels of glutathione. In a randomized, double-blind study conducted in Italy, subjects taking NAC and suffering from chronic degenerative diseases, were found to have a significant decrease in the frequency of influenza-like episodes or severity and length of time of episodes if they did fall ill.

Green tea extract has been used over the centuries for a wide variety of healing uses. It is the second most consumed beverage in the world (water is first). The polyphenols contained in green tea are thought to be very potent antioxidants. A cup of green tea may provide 10-40 mg of polyphenols and has antioxidant activity greater than a serving of broccoli or spinach. Some research has demonstrated that components of green tea have antioxidant properties over 200 times more potent than vitamin E. Investigators have shown that its main catechin called epigallocatechin-3 (EGCG) may be a primary factor for the observed decrease in the risk of cancer associated with green tea consumption.

Resveratrol, a compound found mostly in grapes, is a fat-soluble compound and is an impressive antioxidant that works to clean up the free radicals causing or contributing to inflammation. In a number of epidemiological and in vitro studies, resveratrol has demonstrated an ability to also inhibit tumour initiation, promotion and progression.

Alpha lipoic acid is an antioxidant that helps protect the body from free radicals. Alpha lipoic acid works in the body by enhancing the antioxidant roles of vitamin C, vitamin E and glutathione. It also greatly assists two enzymes that convert our food into energy.

Grape seed extract contains a total of 95% OPCs (oligomeric proanthocyanidins). OPCs are noted for their ability to increase intracellular vitamin C levels, decrease the permeability and fragility of capillaries, scavenge free radicals and slow the destruction of collagen (the important support structure of skin and blood vessels). Free radicals are very short lived elements (existing for perhaps only a fraction of a second) but the damage they cause can be irreversible. OPCs have also been shown to prevent the release of inflammatory compounds such as histamine and prostaglandins – compounds that can injure a number of bodily systems such as the respiratory or circulatory system.

Lycopene is a type of carotene. Carotenes or carotenoids are a component of many fruits and vegetables that have significant antioxidant capabilities.

Lutein belongs to the xanthophyll family of carotenoids and is a major component of the macular pigment of the retina and the lens of the eye. It functions as a major antioxidant and filters high-energy blue light.

Curcumin is the main biologically active phytochemical compound of turmeric. Turmeric is a spice derived from the rhizomes of *curcuma longa*, which has been used in Ayurvedic Medicine for centuries. Curcumin, is extracted from turmeric, concentrated and standardized. Extensive research has been conducted over the years on curcumin and research supports a wide range of health benefits including antioxidant effects, modulation of the production of inflammatory signal molecules, inducing apoptosis in cancer cells and increasing cellular glutathione levels.

Ellagic acid (pomegranate extract) is derived from pomegranates, however it can also be found in raspberries, blackberries, strawberries and walnuts. Ellagic acid seems to have many important characteristics for human health. It is anti-inflammatory, antimutagenic and an antioxidant. Researchers have been very interested in the potential anticancer activity of ellagic acid. Ellagic acid has been clinically shown to cause cell death in certain cancer

cells such as colon, esophageal, liver, lung, tongue and skin cancers in rats and mice both in vitro and in vivo (in the lab and in human studies).

Quercetin belongs to a class of water-soluble plant colouring substances called bioflavonoids. Although bioflavonoids do not seem to be essential for life, they do seem to be essential for optimal health. Quercetin is a bioflavonoid that is very supportive of vitamin C. Bioflavonoids are usually found in foods alongside vitamin C – often in the white of the rind of citrus fruits and in vegetables such as green peppers and tomatoes. It is also an antioxidant found in red wine. Many flavonoids inhibit tumour formation with quercetin 'in vitro' consistently being the most effective (Murray 1996). Quercetin has also been shown to reduce histamine levels and allergy symptoms. It is thought to work by stabilizing mast cells and basophils and the subsequent release of histamine and other inflammatory chemicals. Quercetin is therefore not only helpful for allergies but also for all kinds of inflammatory responses such as bursitis and arthritis. Additionally, quercetin is a potent antioxidant and plays a role in scavenging free radicals.

Combination Rationale

Immuno Multi™ is an advanced daily multi-antioxidant and multi-vitamin formula. It is the perfect blend of essential, high quality vitamins, minerals and natural antioxidants in doses that are high enough to effectively support the immune system.

Each ingredient in the Immuno Multi™ has been carefully selected according to extensive published scientific research. Specific nutrient dosage levels in the Immuno Multi™ have also been chosen based on this research. Most importantly, this formula respects that there is a necessary critical synergy for all elements in a vitamin supplement. Nutrients working together can enhance each other. Balance between the nutrients is therefore extremely important.

Immuno Multi™ users will find that the ingredients are present in optimum therapeutic dosages. With Immuno Multi™, the body has the right complement of tools which work together at building health without overwhelming the body system.

Oxidative damage, inflammation, demineralization and impaired immunity are believed to be the fundamental causes of most chronic diseases. CanPrev has developed a daily supplement that includes a broad array of vital antioxidants to help counteract oxidative stress and damaging free radicals.

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