

# Support Your Natural Killer Cells

## In The Battle Against Cold & Flu

### Stimulating Your Own Natural Immune System, The Newest Frontier In High Tech Science

One of the newest frontiers in medical science is the support or stimulation of our own natural immune system. The vast amount of new research regarding how natural substances can affect the immune system is staggering. For example, actual human testing has now shown that vitamin C supplemented volunteers showed increased natural killer cell activity.

This is just the very smallest tip of the iceberg. New research is now coming out daily regarding how natural substances can affect our immune system. This cutting edge research is the basis around which Biotics Research Corp. designed a core group of cold-flu/immune related products. Below are some of the aspects of our natural immune army, and the products for immune support.

### Your Immune Army

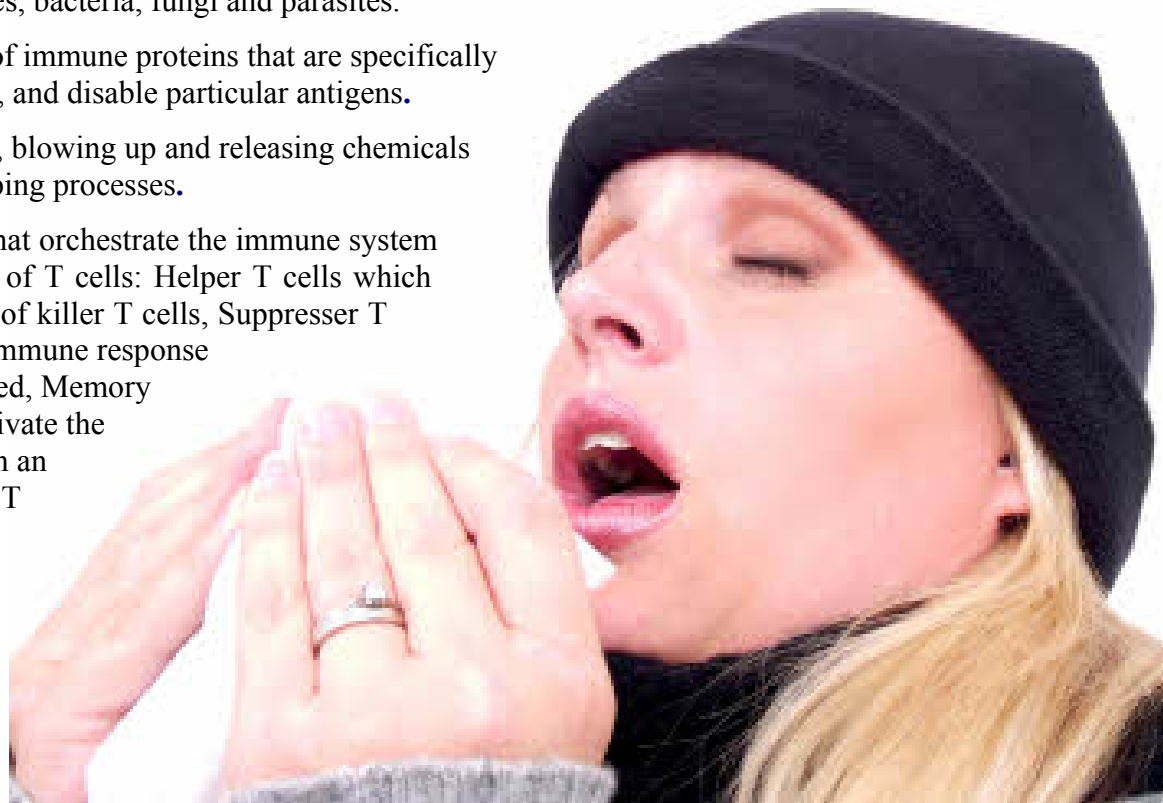
**Natural killer cells** scout for infected or malignant cells and destroy them.

**Phagocytes** (neutrophils, eosinophils, monocytes) are cells that seek out and eat the enemy; viruses, bacteria, fungi and parasites.

**Antibodies** are an army of immune proteins that are specifically created to stick to, attack, and disable particular antigens.

**Basophils** act like mines, blowing up and releasing chemicals which trigger disease coping processes.

**T-cells** are the generals that orchestrate the immune system army. There are 4 types of T cells: Helper T cells which stimulate the production of killer T cells, Suppressor T cells which reduces the immune response when the threat is removed, Memory T cells which quickly activate the immune response if/when an antigen reappears, Killer T cells that kill infected or cancerous cells.



# Immune Product Summary

## **BioImmunozyyme Fort**

### **Vitamin, Mineral, Glandular Support**

If key nutrients are deficient, the body's ability to fight infections is compromised. BioImmunozyyme Forte provides nutritional support for all of the key deficiencies related to the immune system. At low doses it is a foundational supplement providing key nutrients in balanced ratios and can be used to bolster the body's natural *preventative* function. It can also be used at *higher doses* to activate or support the body's fight against the microbial kingdom.

### **UltraVir-X**

#### **Botanical, Herbal Support**

UltraVir-x is a high tech product designed to feed the cells which attack viruses. Synergistic vitamins and minerals provide support for this proprietary blend of powerful botanicals. These botanical agents serve as antioxidants, immune modulators, and as anti-inflammatory agents.

### **IAG**

#### **Immune Modulating Powder**

This highly refined powder contains up to 99% pure arabinogalactans. Arabinogalactans function as immune modulators, enhancing or decreasing the immune function as needed. It is the arabino- galactan content of Echinacea which is responsible for its anti-microbial reputation, and it *only* contains about 6% of these arabinogalactans, IAG contains up to 99%! One researcher calculated that 1 tsp of

IAG has the power of 3-5 bottles of commercially available liquid echinacea. This powder mixes well with juice; it is the perfect immune enhancing food for children with chronic or acute infections.

### **ADP**

#### **Natural Antibiotic, Antifungal, Antibacterial**

Oregano Oil has been used in Europe as an antibiotic and antifungal agent. Recently it has also been shown to assist in the elimination of certain strains of amoebas. Many reports by physicians have shown that ADP has even been effective in preventing dysentery when traveling abroad.

### **Bio-FCTS**

**Anti-viral bioflavonoids** to tone the immune system and prevent viral replications. Also contains vitamin C, Quercitin, Neonatal thymus & spleen.

### **Bio-D Mulsion Forte**

Studies have found the influenza virus is present in the population year-around; why is it a wintertime illness? Vitamin D (which we get from the sun) blood levels are at their highest in the summer but reach their lowest levels during the flu and cold season. Vitamin D has profound effects on human immunity, it increases production of antimicrobial peptides while simultaneously preventing the immune system from releasing too many inflammatory cells,

## Product Detail

### **Bio Immunozyyme Forte**

**Vitamin A:** Stimulates & supports natural killer cell activity, phagocytosis and antibody production, enhances antiviral activity, helps maintain mucosal surface & integrity of lymphatic tissues, the primary barrier to microorganisms. Vitamin A treatment showed 79% reduction in respiratory disease in children.

**Pantothenic acid:** Deficiencies in this B vitamin are associated with decreased growth of the thymus gland and decreased antibody titers. The thymus directs the production of lymphocytes, including T suppresser, T helper, cytotoxic T cells, and natural killer cells

**Vitamin C:** Tests showed supplementation increases natural killer cell activity, increases phagocytosis, enhances antibody production and B-cell function, possesses antihistamine- like properties, possesses bactericidal & antiviral properties.

**Vitamin E:** Moderate amounts of vitamin E seem to increase the ability of the macrophages to destroy bacteria and to boost activity of T lymphocytes. This vitamin has been used to manage auto-immune conditions like Lupus Erythematosus.

**Mixed Carotenoids:** Testing showed beta carotene supplementation increased T-cells by 30%.

**Vitamin B1:** Serves as an enzyme helper in the breakdown of glucose and in Krebs's Cycle.

**Vitamin B6:** Human and animal studies link B6 deficiencies to impaired antibody production, and slowed T-cell differentiation. Supplementation improved lymphocyte subpopulations and mitogen responsiveness.

**Zinc:** Immune cells require zinc for chemotaxis. Supplementation reduced the incidence of infection for HIV patients. Deficiency leads to atrophy of lymphatic tissues, impaired phagocytes, and decreased T-cell function.

**Selenium:** Human and animal studies show selenium deficiencies can cause depressed immunity and reduced T-cell production.

**Copper, Manganese:** Required for synthesis of mitochondrial and cytoplasmic forms of SOD.

**CoQ10:** Supplemental CoQ10 was shown to increase phagocytosis and antibody levels in lab animals.

**Echinacea:** Immune enhancing herb

**Chlorophyllins:** Chlorophyll [protects lymphocytes](#) thus supporting cell mediated immune function.

**Lactobacillus acidophilus:** A member of the normal gut flora, which produces vitamins, stimulates the immune system and produces factors that [inhibit growth of less desirable organisms](#).

#### Neonatal Glandular Extracts

**Thymus:** The thymus [directs the production of lymphocytes, including T suppresser, T helper, cytotoxic T cells, and natural killer cells](#). Thymus extracts can help normalize elevated or depressed ratios of T helper/T suppresser cells.

**Spleen:** Extracts can specifically [modulate phagocytic activity in vitro](#).

**Pancreas:** The pancreas secretes somatostatin which regulates growth hormone secretion.

**Adrenal:** The adrenal glands [support normal immune function](#), they produce hormones that adapt the body to stress.

**Salivary glands:** Salivary glands produce factors that [enhance lymphocyte proliferation](#) and support thymus, spleen, and lymph nodes in animal studies. The major salivary glands also [produce antimicrobial factors](#).

#### UltraVir-x

**Vitamin C:** Tests showed supplementation [increased natural killer cell activity, increases phagocytosis, enhances antibody production](#) and B-cell function, possesses antihistamine-like properties, possesses [bactericidal & antiviral](#) properties.

**Vitamin A:** [Stimulates & supports natural killer cell activity, phagocytosis and antibody production, enhances antiviral activity](#), helps maintain mucosal surface & integrity of lymphatic tissues- the primary barrier to microorganisms. Vitamin A treatment showed 79% reduction in respiratory disease in children.

**Natural Mixed Carotenoids:** Testing showed beta carotene supplementation [increased T-cells by 30%](#).

**Copper:** [Helps bind immunosuppressive iron](#).

**Zinc:** Supplementation [reduced the incidence of infection](#) for HIV patients, [deficiency leads to atrophy of lymphatic tissues, impaired phagocytes, and decreased T-cell function](#).

**Maitake mushroom:** [Activated immune competent cells](#) in animal testing.

**Wheat grass:** Chlorophyll [protects lymphocytes](#) thus supporting cell mediated immune function.

**Rutin:** Posses [significant antiviral activity in vitro](#), inhibits formation of proinflammatory leukotrienes, neutralizes by-products of phagocytosis.

**Astragalus membranaceous:** [Increased response to T-cell dependent](#)

[antigens](#) in animal testing.

**Forsythia suspensa:** Antioxidant, [anti-bacterial](#).

**Stillingia sylvatica:** Chinese herb, traditionally used to balance body systems.

**Hamamelis virginiana:** Tannic acid source (anti-oxidant), astringent.

**Bupleurum falcatum:** One of its ingredients demonstrated [increased immune function](#) in animal testing.

**Phyllanthus amarus:** Shown to [inhibit hepatitis B virus in cultured cells and in animal testing](#).

#### ADP

ADP is a standardized oil of oregano extract. An antimicrobial analysis on oregano oil was performed in 1979. Using oil of oregano, maximal zones of inhibition were reported for 74 percent of different isolates of *C albicans*, the highest score reported for any of the oils studied.

In addition, several other potentially [harmful bacteria were inhibited by the oil of oregano](#). Sensitive bacteria included *Staphylococcus aureus*, *Pseudomonas spp*, *Proteus mirabilis*, *Klebsiella pneumoniae* and group B *Streptococcus*. Other studies demonstrated the sensitivity of *E. coli*, *Aerobacter aerogenes*, *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Bacillus subtilis* to oregano. Therefore, the [data indicates that oil of oregano exhibits a broad-spectrum antimicrobial activity in vitro](#).

Another small clinical study was done with oil of oregano. All patients showed pre-study cultures of at least 2+. Analysis revealed 80% of organisms were candida albicans and 20% non candida or non albicans species. [After 4 weeks of relatively low dose oregano oil treatment, 60% of patients showed zero growth, 30% of patients showed 50% reduction in growth and 10% \(1 person\) showed no change](#).

Also, [supplementation with ADP has eradicated parasites](#) such as Blastocystis hominis, Entamoeba hartmanni, and Entamoeba coli from symptomatic patients.

#### IAG

This highly refined powder contains up to [99% pure arabinogalactans](#). Arabinogalactans function as [immune modulators](#), enhancing or decreasing the immune function as needed. It is the arabinogalactan content of Echinacea which is responsible for its anti-microbial reputation, and it *only* contains about 6% of these arabinogalactans, IAG contains up to 99%! Cultures of human peripheral blood mononuclear cells as well as cultures of pre-seperated peripheral non-adherent cells and monocytes [showed enhancement of natural killer cytotoxicity against K562 tumor cells](#) when pretreated with arabinogalactans.

Arabinogalactans have also [shown to have dramatic effects on bacterial adherence](#).

**Sugar:** Reduce sugar as much as possible.

**Water, Not Fluids:** Possibly the greatest non-drug prevention for the flu is drinking enough water every day! Notice we did not say drink enough fluids every day. Coffee, tea, soft drinks and even juices are all dehydrating. It is extremely important to drink enough pure water every day. Simple, pure, taken for granted water is one of nature's best natural detoxifiers. Drink a minimum of 8 glasses of pure water daily.