

## Exceptional Support for Effective Immune System Function

Effective immune function is our single greatest defense against today's countless threats to good health and quality of life. Without effective immune function, even minor threats can become major obstacles to one's health and wellbeing. In our world of rapid global travel, mutating microbes (viruses and bacteria), and the pressing challenges of everyday life...a vibrant, efficient immune system is the best possible health insurance anyone can have.

**Vital Health Options' Enhanced Transfer Factor™** includes three amazing proprietary, science-based nutrient blends, combined with immune-health supporting Vitamin C and Zinc. These ingredients work together in a powerful, synergistic way to educate, activate, guide and regulate effective overall immune system function. In a world of ever-growing health challenges, **Vital Health Options' Enhanced Transfer Factor™ (ETF)** supports and maximizes effective immune system function.

### Key components and what they do:

► **IF-2TG™** is a proprietary blend of highly beneficial bovine colostrum extracts (transfer factor, proline-rich polypeptides, lactoferrin, growth factors) and bovine thymus gland. Taking TF-2TG™ in **ETF™** is like giving your immune system a state-of-the-art instruction manual, the keys for its efficient, well-balanced functioning, and front-line tutoring from immune cell to immune cell.

◆ **Transfer factor (TF)** is a scientifically recognized, intricate system of immune communication at the cellular level. Produced by the immune system, for the immune system, it is designed by nature to transfer highly concentrated, easily usable immune intelligence from one immune system to another, as from mother to baby through her colostrum or "first milk." Transfer factors are essential components of immune health in even the most primitive of species, and have been found to be universally effective (and non-allergenic), regardless of differences between donor and recipient. This means transfer factor extracted from cow colostrum is safe and equally effective for humans. Repeated independent scientific studies have shown **TF** to be exceptionally effective in activating Natural Killer or "NK" cell function. NK Cells are first-line-of-defense immune cell warriors whose function is to seek and destroy harmful microbes and abnormal cells. Their ability to do this effectively is essential for ongoing victory over a wide array of health challenges. A 2004 research study conducted at Rockefeller University demonstrated that NK cells require activation to function effectively. The **TF** provides exceptional support for NK Cell activation and effectiveness. Among many other benefits, **TF** transfers a bank of "how to function" memory from the donor's effective immune system to the naïve or compromised immune system, enabling the recipient's immune system to more rapidly recognize and respond to a wide range of health threats. It also provides immune messaging to calm or prevent immune system overreaction and misdirection, which wastes precious energy and can cause multiple significant health challenges.

◆ **Proline-rich polypeptides (PRPs)** are a class of small proteins that have the unique ability to modulate and stabilize immune processes. Among **PRPs'** many benefits, they: 1) accelerate recovery of immune system function in those with ineffective immune responses; 2) enhance function of the thymus gland, critical in immune health; 3) enhance appropriate cell-mediated immune responses; 4) inhibit immune system overreaction or misdirection; 5) modulate production of cytokines [immune system regulatory messaging proteins of], and 6) enhance development of immunity as needed.

◆ **Fucoidan:** fucose-containing oligosaccharides shown to provide comparable benefits to those of human oligosaccharides. Examples include: 1) support of both innate and adaptive immune function: enhancement of NK cells/Th1 activity, enhanced maturation/ activity of dendritic cells (immune cells for recognition of potentially harmful microbes); 2) support of appropriate immune function response to abnormal cell growth. 4) support of healthy vascular function; 5) support of healthy inflammatory responses; 6) support of healthy wound healing; 7) support in pain control; 8) liver-protective effects; 9) enhanced metabolism; 10) inhibition of fat cell maturation, and enhancement of breakdown of fat; and 11) may support beneficial modulation of endocrine hormones.

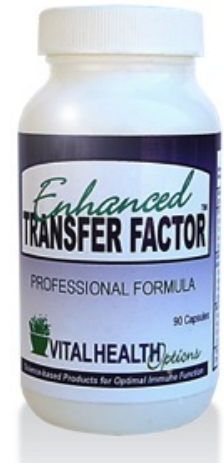
◆ **Lactoferrin** belongs to the family of iron-binding proteins and exhibits a wide spectrum of immune-function enhancing properties. Among its multiple benefits, it: 1) binds iron, which is essential for the growth of both microbes and variant cells; 2) enhances gut health by stimulating the growth of gut-associated lymphatic follicles; 3) promotes the growth of "good" bacteria in the gut; 4) protects against the toxicity of reactive oxygen radicals; and 5) promotes bone growth.

◆ **Growth Factors**, from colostrum, have multiple regenerative effects that extend to: 1) all structural body cells; 2) the gut; 3) significant muscle and cartilage repair; and 4) promotion of wound healing.

◆ **Thymus gland extracts** have been shown to: 1) produce immune response even in those individuals previously unable to demonstrate meaningful immune function; 2) result in improvements within the cellular branch of immunity involving T-cells (helper/inducer, suppressor, cytotoxic, NK cells, K cells and macrophages); and 3) enhance wound healing and general tissue repair after injury.

### ► MINERALS

◆ **Zinc**, over forty years ago, was first identified as a mineral that is essential for human health. It plays a vital role in more than 300 enzymatic and biological processes. Within the immune system, zinc is crucial for development and function of neutrophils, NK cells, macrophages, T cells and B cells. Zinc is a critical cofactor of Thymulin, a thymic hormone involved in T-cell maturation. Zinc also reduces free-radical-induced cellular injury by enhancing the body's antioxidant function. *Continued ....*



**Directions:** As a dietary supplement, take 3 capsules daily. Best taken with food.

Serving Size: Three (3 Capsules)  
Servings per container: 30

### Supplement Facts

	Amount Per Serving	RDI%
<b>Zinc (as amino acid chelate)</b>	<b>15 mg</b>	<b>100%</b>
<b>Vitamin C (as Ascorbic Acid)</b>	<b>120 mg</b>	<b>200%</b>

**IF-2TG™** 500 mg \*\*

A proprietary blend of low molecular weight bovine colostrum extracts (containing transfer factor, proline-rich polypeptides, lactoferrin, and growth factors), fucoidan and bovine thymus gland.

**AgariCeps™** 420 mg \*\*

A proprietary blend of organically grown mushroom extracts selected for their biological potency. They include: **Cordyceps sinensis**; **Agaricus blazeii Extract** (Agaricus Subrufescens); **Turkey tails** (Coriolus Trametes versicolor); **Indian bread** (Poiria Cocos); **Chaga** (Inonotus obliquus); **Maitake Mushroom** (Grifola frondosa) (Dicks.:Fr); **Shiitake** (Lentinus edodes); and **Reishi** (Ganoderma lucidum).

**VitatroI™** 652 mg \*\*

A proprietary blend of plant extracts and natural acids containing: **Curcumin** (turmeric (*Curcuma longa* L., root extract)); **Alpha Lipoic acid**; **Quercetin (citrus extract)**; **Pomegranate extract**; **Resveratrol** (Japanese Knotwood (*Polygonum cuspidatum* Sieb. & Zucc., root) and grape (*Vitis vinifera* L., skin extract)); **Bioperine®** (black pepper (*Piper nigrum* L. extract))

\*\* Recommended Daily Intake (RDI) not established.

## ► VITAMINS

◆ **Ascorbic Acid (Vitamin C)** was first scientifically demonstrated to strengthen immunity in 1942. Since then, the critical role of ascorbic acid in healthy immune function has been repeatedly verified. For example, healthy functioning leukocytes, the white blood cells responsible for host defense, contain up to 80 times higher concentration of ascorbic acid than does blood plasma, making it clear that Vitamin C is essential for effective immune function.

► **AGARICEPS™** is an **ALL-ORGANIC** proprietary blend of mushroom extracts selected for their exceptional biological potency. Mushrooms have been used by the Chinese to support healthy immune function for centuries, and in the late 1960s Western scientists joined those from the East in researching the mechanisms of mushrooms' apparent benefits. This resulted in growing scientific evidence demonstrating their wide-ranging beneficial effects for human health. Polysaccharides were identified as key elements to many such benefits. **AGARICEPS™** provides an array of the highest quality polysaccharides drawn from an exceptional combination of organically grown, scientifically researched mushrooms.

◆ **Cordyceps** (*Cordyceps sinensis* Berk.) has unique biochemistry that is extremely bioactive in humans. Among its many benefits, it: 1) increases overall immune responsiveness; 2) augments NK cell activity; 3) is associated with increased targeted immune function; and 4) evokes a balanced immune response.

◆ **Agaricus** (*Agaricus blazeii* Murell) is considered by many to be the king of beneficial mushrooms. Among its benefits: 1) strong immunomodulating properties; 2) increased production of key immune cells (helper T-cells [CD4+] and cytotoxic T-cells [CD8+]); 3) production of leukocyte-enhancing, and liver-health supportive effects; and 4) significant production of cytokines (regulatory messengers of the immune system).

◆ **Turkey tails** (*Trametes versicolor* L.) is the most widely researched of the immune-enhancing mushrooms. Studies of the physiological effects of this mushroom demonstrate that it: 1) promotes the proliferation of T cells; 2) increases thymus weight; 3) raises the activities of NK cells and macrophages; 4) maintains and raises white blood cell count; 5) supports healthy physiologic responses during chemotherapy and radiotherapy; and 6) promotes healthy cellular function, which promotes reduction of pain.

◆ **Indian bread** (*Poria Cocos* Schw.) is a respected mushroom for which studies have shown: 1) support of effective recognition and response to abnormal cell development; 2) support of healthy immune function through anti-angiogenic (development of new blood supply) activity; and 3) enhanced function of recognizing and responding to potentially harmful microbes.

◆ **Chaga** (*Inonotus obliquus* L.) is a natural antioxidant mushroom. Among noted benefits, it: 1) is proven to stimulate immune system function; 2) is proven to support healthy cellular development; 3) supports healthy inflammatory responses; and 4) inhibits oxidative damage in human lymphocytes.

◆ **Maitake** (*Grifola frondosa* Dicks.) contains grifolan, an important beta-glucan polysaccharide, that has been shown to: 1) activate macrophages, a type of cell considered among the "heavy artillery" of the immune system; 2) supply the second signal that completes the activation of NK cells; 3) be a very beneficial adjuvant (supportive measure) with chemotherapy; 4) promote endocrine and cardiovascular health; and 5) strengthen immune recognition and response to potentially harmful microbes.

◆ **Shiitake** (*Lentinus edodes* Berk.) contains a polysaccharide compound called lentinan that has been shown to demonstrate powerful support of healthy cell development. Lignins, another component of the Shiitake mushroom, have demonstrated strong support of healthy immune recognition and response to potentially harmful microbes.

◆ **Reishi** (*Ganoderma lucidum* Curtis) supports healthy immune system function by: 1) strengthening cell-mediated immunity; 2) supporting effective antibody formation; 3) stimulating immune cell proliferation; and 4) modulating the functions of Natural Killer Cells.

► **VITATROL™** is a proprietary blend of plant extracts and natural acids incorporated into **ETF** because of their remarkable ability to maximize the

potential benefit of many nutraceuticals. Whether accomplished by improved absorption, increased bioavailability, enhanced circulation or greater antioxidant power, these ingredients offer exceptional support for effective immune function and overall health.

◆ **Resveratrol** is the active component in grape skins. It is also the key factor in what is called the "French Paradox" or the prevention of diet-induced health damage. Other examples of benefits, it: 1) has been shown to have many beneficial anti-aging effects, even at low doses; 2) promotes healthy inflammatory responses through modulation of enzymes; 3) supports cardiovascular health; and 4) supports normal cell development and life span.

◆ **Quercetin** is among the most active of the flavonoids. Among other benefits, it provides: 1) significant support of healthy tissue responses; 2) inhibition of both the manufacture and release of histamine; 3) potent antioxidant & vitamin C-sparing activity; and 4) synergistic action with resveratrol.

◆ **Pomegranate extract** is rich with phytonutrients known to provide multiple health benefits, including: 1) strong antioxidant properties; 2) support of effective immune function; 3) "binding" of potentially harmful chemicals; 4) promotion of cardiovascular health; 5) ellagic acid component potentiates the benefits of quercetin, and interacts synergistically with resveratrol.

◆ **Alpha Lipoic acid** is a natural antioxidant. Among other benefits, it: 1) helps the body more effectively rid itself of harmful environmental substances, [examples: cigarette smoke, car exhaust, and household cleaning products]; 2) combined with nutraceuticals such as curcumin, it synergistically decreases oxidative stress; 3) offers cardioprotective activity during oxygen deprivation.

◆ **Curcumin** is the yellow component of the spice turmeric. Studies show curcumin: 1) exhibits varied immunomodulatory actions; 2) has potent regulating effects on inflammatory processes; 3) is a strong antioxidant that enhances cellular resistance to oxidative damage; 4) promotes increased glutathione levels, which improves the body's natural antioxidant shield and increases the efficiency of multiple detoxification processes; 5) has liver-protective benefits; and 6) specifically protects the gastrointestinal tract.

◆ **Bioperine®** is a standardized extract from black pepper or Piper longum L. The active component, piperine, is recognized for its enhancement of the bioavailability of many nutrients, including curcumin (contained in this formula). Piperine supports rapid absorption of nutrients through: 1) increased blood supply to the GI tract; 2) increased emulsifying content of the gut; and 3) increased active nutrient transport, especially for curcumin.

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