

Are you prepared?

THE TOP 10 Of The Best 21st Century Immune Support Agents

Scientists are concerned that genetically engineered bio-stressors are globally emerging within our bio-network and can burden the body and trigger atypical responses by our immune system. These bio-stressors potentially contain a genetic code designed with so-called “gain of function” properties that allow it to spread beyond usual means. Some bioinformatic experts have presented clinical evidence demonstrating the protein structure of these bio-stressors have different ways to directly and indirectly burden the immune system by means of potentially disrupting the gut ecology.

With increasing environmental stress and uncertain food quality, supporting the body to ensure a healthy immune system response is now more important than ever for everyone. The wisest approach is to support the body by adopting an aggressive nutritional program using highly effective, carefully chosen nutraceutical agents targeted to support the entire body’s physiology.

Now you can nourish your immune system with an elegant daily regimen of the most advanced immune-potentiating botanicals ever discovered. Exciting research demonstrates that a comprehensive strategy administering certain [general immune essentials](#) coupled with [immune targeting agents](#) are highly recommended in clinically promoting the body’s natural defense mechanisms during these time periods when immune specific concerns are present.

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Premier Research Labs

GENERAL IMMUNE ESSENTIALS



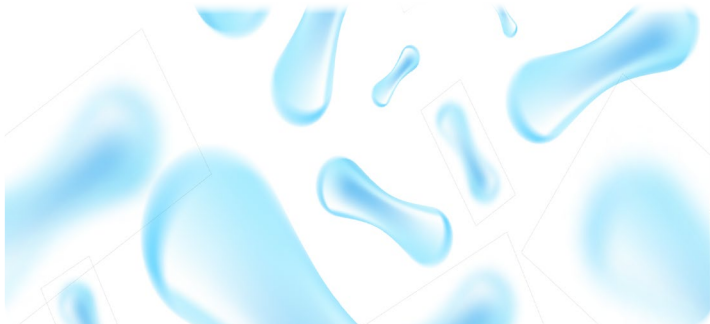
1. VITAMIN D

For decades, we have known that vitamin D was very important in helping to maintain healthy bones, bone growth, bone mineralization and absorption of calcium. But now, eye-opening research shows that our immune cells have vitamin D receptors. Recent studies confirm that vitamin D **modulates the inflammatory response of an already healthy immune system during times of respiratory stress**. In addition, ensuring that vitamin D levels are adequate may be critically important to help activate immune cells in order to to promote a healthy immune response.



2. VITAMIN C

Natural-source Vitamin C, and its accompanying phytonutrient symphony (such as tannins, flavonoids and various polyphenolic compounds), collectively create the quintessential antioxidant support that is critical to vitamin C's key functions: supporting the biosynthesis of collagen, neurotransmitter formation and energizing the body's immune system. Vitamin C helps **modulate the immune cells' healthy inflammatory response** by actively transporting vitamin C into cells during times of stress. As we age, lower levels of vitamin C circulate within our immune cells. The wise choice is to supplement daily with vitamin C to ensure that the body's immune system has it available when it needs it most!



3. SPOREBIOTICS – BACILLUS SUBTILIS

Stunning clinical research has now shown that 70% of the body's immune cells are located in the digestive tract. This discovery

underlines the critical importance of probiotics that are needed to help the microbiome create and maintain optimal balance.

One superstar probiotic, *Bacillus subtilis*, is a probiotic spore former (sporebiotic) that concentrates its actions on bolstering immune function and digestive stability by, in part, controlling microbial populations (**acting as a competitive exclusionary agent**). It also has a unique ability to form spores that protect the microbes from harsh conditions through to the destination where they can germinate robustly - the GI tract.

The spores of *Bacillus subtilis* also help promote the colonization of many other beneficial microbes that effectively contribute to a healthy immune response during times of stress.

Certain clinically studied strains of *Bacillus subtilis*, such as DE111, offer the following benefits: • **Modulates the body's own natural inflammatory response** • **Crowds out bacterial pathogens and maintains healthy gut flora** • **Supports the healthy immune reaction of intestinal cells** • **Communicates with intestinal cells to maintain the gut barrier's function** • **Can persist in the GI tract, increase its numbers and then re-sporulate.**



4. ZINC SULFATE HEPTAHYDRATE

The immune system is tasked with protecting the body against pathogens and potentially damaging foreign bodies. When immune dysfunction occurs due to a zinc deficiency, restoring healthy levels of zinc can help support and improve healthy cell function. This important micronutrient supports both innate and adaptive immunity.

To distinguish between cells that are part of the body's own healthy tissue and from those that are threats against the immune system, immune cells interactively communicate with one another. For this communication to be successful, the immune cells must have healthy receptors. Ligands, which bind to the outside of the receptor surface and allow it to be activated, are critical to this process. Zinc interacts with many ligands to support this complex cell signaling, process, an important component to healthy immune system function.

Although zinc is a critical micronutrient, the type of zinc in supplements is important in order to elicit the most favorable immune response. Some zinc supplements on the market are formulated with zinc oxide or zinc carbonate, which are poorly absorbed in part, due to their minimal ionic charge. In contrast, **zinc sulfate heptahydrate**, a hydrated form of zinc sulfate, **provides zinc in an ionic form - the most effective form**. This highly absorbable form of zinc offers superior zinc supplementation support for a healthy immune system.

5. BETAINE HCL

Healthy stomach acid levels are the first line of defense in your body's natural immune response. The body's ability to produce adequate stomach acid, called hydrochloric acid, can slowly decline with age. Lowered levels of hydrochloric acid, or HCL for short, may stress the body's immune health as well as the body's overall health. Supplementing with betaine HCL after meals assists the digestive process by supporting gastric acid secretion. **HCL is a front-line defense in supporting the body's overall immune health.**

IMMUNE TARGETING AGENTS



6. GREEN TEA EXTRACT

Science dating back over 100 years references the elegant immune-supporting properties of green tea, specifically its ability to promote the activity of gamma delta T cells, a type of immune cell that acts as **“a first-line defense”**. Impressively, scientific articles have revealed that polyphenolic compounds in green tea called catechins such as epigallocatechin gallate (EGCG) and epicatechin gallate (ECG), can directly support the immune system response **and can also act to interfere with the physical properties of a bio-stressor**.

7. PROTEOLYTIC ENZYMES

Proteolytic enzymes, called proteases, break the long, chain-like structures of protein into shorter fragments. Proteases are metabolically active in all living organisms, and also assist in the **proper dismantling of aged or damaged cell structures** during apoptosis (cell death). High proteolytic activity targets the outer protein shell of certain offending invaders by specifically catalyzing the hydrolysis of peptide bonds between amino acid residues in polypeptide chains. Proteolytic enzymes play a pivotal role in the adaptive function of the immune system and act as an essential modulator in **supporting healthy inflammatory response during times of stress**.



8. N-ACETYL CYSTEINE (NAC)

Various bio-stressors can produce an oxidative stress reaction in the body that can initiate a mass inflammatory response which targets vital organs and glands in the body.

NAC is an **upper-respiratory powerhouse** with solid scientific research behind it indicating that it is one of the best nutritional support agents to help maintain healthy lung function during times of stress. Many studies have demonstrated NAC's immune-promoting properties that can be specific to **modulating a healthy inflammatory response to oxidative stress that can potentially affect the lungs**. Though most individuals gain benefits from NAC at 600-1,800 mg/day, clinical studies have found that doses of up to 2,000 mg/day are safe and effective.



9. NUCLEOTIDES

Nucleotides are tiny building blocks of nucleic acids (RNA and DNA) which are the blueprints for every cell in your body. Nucleotides function as cellular signaling agents and enzymatic cofactors that help keep your immune defenses robust. Each of your trillion plus cells contains over 6 billion nucleotides. These building blocks are stored in a very limited quantity. During times of stress, nucleotide stores can be rapidly depleted. Supporting the body with supplemental nucleotides can help promote cellular energy and vitality as well as protein synthesis. During times of immune stress, when a supplemental source of nucleotides is available, billions of sturdy, fresh nucleotides can be absorbed by the cell to **help promote a healthy immune response**.



10. ALLICIDIN

Human studies confirm the superior immune support properties of garlic that contains high amounts of alliin, an immune supporting compound. Alliin can promote critical components of the innate immune system and also play an essential role in the **adaptive immune response during times of stress**. When raw garlic cloves are crushed, chopped, or chewed, an enzyme known as alliinase is released. Alliinase catalyzes the formation of sulfenic acids from cysteine sulfoxides. Sulfenic acids spontaneously react with each other to form unstable compounds called thiosulfinates.

In the case of alliin, the resulting sulfenic acids react with each other to form a thiosulfinate known as alliin. This compound is what gives garlic extract its broad spectrum immune support and **immunomodulating properties**. Thus, garlic with a high alliin content is known to be a highly significant immune support agent. Unfortunately, many garlic supplements contain no or very little alliin content. A reliable garlic formula will verify its minimum alliin concentration on its label.

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OTHER IMMUNE SUPPORTING COMPOUNDS



IMMUNE MUSHROOMS – CORDYCEPS, REISHI, HIMEMATUTAKE, SHIITAKE, MAITAKE, TURKEY TAILS

The immune-promoting properties of mushrooms have been revered by ancient Eastern health systems for thousands of years. Current research demonstrates that the human immune system can benefit from the excellent support provided by the elegant polysaccharides naturally present in several proven **immunomodulating** mushrooms.

Studies have shown that consuming specific mushrooms supports immune function by offering the unique immune compound, **beta glucans**, and by **generally promoting the maturation and activation of both the innate and adaptive immune systems of the body.**

The innate immune system can be thought of as the body's first line of defense, responding rapidly to potentially harmful insults and foreign bio-stressors. The mushroom's immune-supporting beta glucans are located within the cell walls of the mushroom protected by an indigestible fiber called chitin. Since chitin is difficult for the body to digest, the mushroom should be either cooked, hot water extracted or fermented in order to release its nutritional payload. Fermentation is the top choice for mushroom processing due to its ability to break down chitin as well as provide beneficial postbiotic metabolites.



OLIVE LEAF - OLEUROPEIN

Use of the olive leaf extract has been widely cited and has been operative in herbalist's health systems since ancient times. Present-day herbalists often recommend olive leaf extract as a **superb support for the immune system.** The active nutrient in olive leaf is a highly active phenolic glucoside compound called oleuropein. It is the pharmacologically active constituent responsible for most of the leaf's immune effects.

ACEMANNAN

Stabilized acemannan, an extracted polysaccharide from the Aloe vera plant, has been extensively researched and is considered to one of the

most biologically active and beneficial components in Aloe vera. Acemannan is composed of the saccharide compounds, mannose, glucose and galactose, in a 31:1:1 ratio, and is counted among the eight important, essential monosaccharides critical to human health.

Acemannan's biological activities directly supports the **cell-to-cell communication of the immune system to promote healthy immune responses during times of stress.** The body's innate immune responses are regulated by glycoproteins (which have a carbohydrate attached by a covalent bond) or glycolipids (which contain oligosaccharides) chains that are present of the surface of the cells. These molecules interact with remote cells to cause them to migrate to a damaged site or initiate a secondary biological response.

The reported biological effects of acemannan include the beneficial stimulation of the following: The production of IL-1a (interleukin 1 alpha) TNF-a (Tumor Necrosis Factor apha), IL-6 (Interleukin-6), nitric oxide and prostaglandin E2 by production by macrophages.



COLOSTRUM

Colostrum is a special immune-active fluid secreted by the mammary glands of female cows for about three days after giving birth. Bovine colostrum contains a wide range of naturally occurring immune factors, amino acids, nucleotides and growth factors to support the newborn's immune health.

Dairy cows can produce up to five gallons of colostrum just within their first milking. Since baby calf only consumes about one gallon in the first couple days, excess colostrum is ideal for use as a nutritional supplement.

Colostrum from pasture-fed cows is known to contain highly concentrated immunoglobulins specific to many human antibodies, such as Immunoglobulin G (IgG) - an important type of antibody of the body's immune system. IgG is the most common type of antibody found in circulation representing 75% of serum antibodies in humans. Research has shown that supplementation with bovine colostrum is able to positively modulate immune function.

OIL OF OREGANO

The most active phytochemical in wild oregano is carvacrol, a potent, naturally occurring agent which has remarkable effects that support and promote immune system health. Biological studies have shown that twelve distinct phenolic compounds from oregano exhibit immune supporting activity, most notably labiatic and p-hydroxy-hydrocaffeic acid. Research has demonstrated that oregano oil was effective against all Gram-positive and Gram-negative bacteria that were tested in the study.

THE TAKE HOME MESSAGE

To support the most robust immune health for clients, the prudent choice may be to adopt a comprehensive nutritional program that includes both "General Immune Essentials" coupled with "Immune Targeting Agents."

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