

Your Immune System

What you can do to strengthen it

Many of you are worried about your health and have come to me or to my nurse practitioner asking what can be done to improve your general, overall health, and specifically your immune system. In addition, a reduction in the level of functioning of your immune system is a sign of aging, *i.e.*, immunosenescence. We read about the SARS virus and its high death rate in the Far East and we also know that the West Nile virus is now making a larger appearance here in California this summer with many expected deaths and wonder what the next infectious disease on the horizon is...

We hear so much about the immune system, but what does it mean really? Briefly, your immune system fights off intruders from without (infections) and from within (cancers). But you don't want an immune system to go wrong and be "over vigilant"...this leads to autoimmune disorders, *e.g.*, chronic hives, thyroid problems, seasonal allergies, or worse...multiple sclerosis, or diabetes mellitus (type I) to name a few.

In a few words, the immune system consists primarily of your white blood cells (WBC). This can be broken down further into your "B cells" (they produce antibodies when activated), and "T cells" (multiple types that range from the T_{helper} – helps activate the system – to T_{cytotoxic} cell (this is an assassin cell and will literally punch holes through offending cell membranes, thereby killing them.)) There are also the NK (Natural Killer) cells that can "naturally" kill without needing to be activated by the T cell system. The NK cells kill by inserting a "poison packet" into the invader/cancer cell much like a "kiss of death" in the old Mafia movies. Finally, there are the macrocytes/macrophages that gobble up anything that isn't "you" and then destroys it with hydrogen peroxide. Some of these macrocytes are in your blood, while others literally wander through your tissues (macrophages) including the small passageways in your lungs, looking for intruders to destroy.

Therefore, you thought your body was "at peace"...WRONG! It is ALWAYS at war to keep you healthy. That is, as long as you have an intact and functioning immune system.

Research has shown that as we start to age (and actually that means reach the age of 30), our immune system begins to show its "age" as well and we start to get more and more malfunctions. This is again

known as immunosenescence. The population of NK cells begins to decline. Sometimes it is slight and unnoticeable and other times it is life threatening. Therefore, we are in need of something that will *boost* the immune system where necessary and *dampen* the immune system where necessary.

Some of the more obvious things to do to help your immune system:

1. Quit smoking
2. Get plenty of rest
3. Eat well-balanced meals with plenty of raw or steamed fruits and vegetables
4. Avoid processed sugars routinely
5. At least take a good multivitamin, if not something more (see below)
6. Become spiritually involved with an organized religion
7. Exercise regularly (both aerobic and anaerobic)

In addition, there are some herbal products on the market that purport to boost your immune system. **Juice Plus+**[®] (see elsewhere in this booklet for more information) has been shown to improve immune system functioning and there are two **Advanced Medical Therapeutics**[™] protocols that have been researched to provide augmentation to your immune system.

CNCR Protocol I[™] may be beneficial as a nutritional adjunct for patients that are suffering from chronic viral syndromes, uncontrolled cellular proliferation and other immunocompromised conditions. The rich blend of herbal and phytonutrients content has independently been shown to enhance the immune system. When combined, the synergistic advantage may exceed the sum of the individual parts. *Since this is strictly an immune booster it cannot be taken everyday, month after month.* **CNCR Protocol I**[™] is taken as 2 tablets 3 times daily for two weeks, followed by a 2-week off period and repeated indefinitely.

Mushrooms have been shown to aid with the immune system as well. There are over 20,000 different mushroom species, at least 50 of which have been determined to have health-promoting effects. The common attribute consistent among these species appears to be the polysaccharides, constituents shown to achieve high potency immune system support. These polysaccharides are known specifically as *beta-glucans*.¹

¹ Abel G, Czop JK. Stimulation of human monocyte beta-glucan receptors by glucan particles induces production of TNF-alpha and IL-1 beta. *Int J Immunopharmacol* 1992;14:1363-73.

CNCR Protocol II™ may be a useful dietary supplement for those who wish to enhance their immune system function. **CNCR Protocol II™** capsules contain an array of β -glucans and other active constituents derived from ten of the most medicinal species of mushrooms and is also fortified with an additional 30 mg of β -1,3-glucan derived from purified yeast.

Mushrooms used in **CNCR Protocol II™** are organically grown under carefully monitored conditions to ensure that they never come in contact with heavy metals, pollutants, and contaminants. These mushrooms are specially cultivated to maximize polysaccharide content. As the mushrooms in **CNCR Protocol II™** are cultivated and not wild-grown, no sensitive ecological areas are damaged to collect the mushrooms.

The most interesting experience we have had with using mushrooms on a daily basis is the decrease in seasonal allergy symptoms. This, of course, makes complete sense since allergy symptoms are caused by an overactive immune system. We have had patients state that within two weeks of starting the mushroom products, they no longer have any allergy symptoms, i.e., postnasal drip, watery eyes, sneezing, and chronic dry cough.

CNCR Protocol II™ is taken 2 capsules twice a day with food. Remember that these are whole foods and the only contraindications would be a specific allergy to one of the ingredients.

The **Juice Plus+** protocol is two capsules twice a day. See elsewhere in this booklet for more information pertaining particularly to **Juice Plus+**.

There is a mushroom blend that can be found at *The Vitamin Shoppe* and it contains maitake, reishi, and shitake mushrooms. While not as comprehensive as **CNCR Protocol II™**, it can definitely help.

So do your body and your health a favor and start on these simple and very effective supplements.

All of these protocols and vitamins can be ordered at the front desk except for the blended one.

Since all of these are whole foods, there is no concern about interactions with medications. The only concern is the interaction of the Garden Blend of Juice Plus+ with its Vitamin K and the medication Coumadin® (warfarin). Vitamin K is the antagonist for this medication. However, because it is *standardized* in each capsule, it is possible to take Juice Plus+ as directed and have the Coumadin adjusted upward to adapt to the higher dose of Vitamin K in the diet.