

# Beat the flu this winter!

Optimal immune function is not only important for the prevention of colds and flu, but also ensures other important aspects of immunity like detection and destruction of cancer cells and prevention of autoimmune conditions takes place. Your immune system is in constant surveillance in search of foreign invaders. The healthy human has about a trillion lymphocytes that are combat ready, and can produce 10 million cells per minute to replenish the stock. Our B-lymphocytes, which are programmed from your body's accumulated immunologic memory, can secrete trillions of bug seeking antibodies every second to coat invaders – painting them like targets for your white blood cells to destroy.

With such a formidable immune force on your side, you need only give your body what it needs to keep it functioning in a healthy way.

## **Here is an easy 10 point action plan to bolster your defenses!**

### **1: Catch Enough Zzz's**

Enough quality sleep helps keep the immune lowering stress hormone, cortisol, in check. Stress, coffee, and the average western go-go-get-it-done lifestyle triggers the release of cortisol from the adrenal glands to help you cope and keep up. Cortisol not only impairs immune function, but also causes insomnia, increases appetite and cravings, increases blood sugars, and weakens connective tissue. Additionally, sleep deprived individuals secrete less leptin – a hormone regulating appetite and associated with weight gain and obesity.

**Action Tip:** Getting enough sleep helps keep cortisol in check. For optimum immune function, ensure at least 6-8 hours of sleep each night, depending on individual needs. A Massachusetts study involving over 14,000 women found that mortality risk is lowest among those sleeping 6 to 7 hours, but listen to your body and respond to its needs.

### **2: Time your Zzz's optimally**

Cortisol levels fluctuate throughout the day. Early morning (2am) it begins rising, peaking around 7-8am to help you get up and face the day's challenges. It then gradually decreases reaching a low around 9:30-10pm – bedtime according to your body's natural diurnal rhythm, time to rest and recharge.

**Action Tip:** To make use of the deepest most restorative sleep, try to be in bed by 9:45pm as often as possible. This ensures the benefit of that magic 4 hour sleep window from 10pm-2am. You'll wake refreshed with plenty of energy for the morning and be more productive too!

### **3: Control your Cortisol**

We know our bodies respond to stresses (deadlines, job insecurities, arguments, worries, etc) by secreting the appropriate hormones. At first, your adrenal glands secrete more cortisol. Later, after months or years they start to fatigue and secrete less and less. During this whole time, thyroid function is compromised, sex hormone levels decrease leading to loss of libido and infertility, and your body becomes more sensitive to adrenaline.

After prolonged periods of stress, the normal cortisol rhythm can be altered, keeping you up at night and making you sleepy and tired during the day. The list continues with symptoms such as weakened memory, highly symptomatic menopause, blood sugar imbalances, high cholesterol, chronic pain, faster aging, weight gain, and Alzheimer's disease.

**Action Tip:**

Try to avoid caffeinated beverages, especially in the morning. Replace morning coffee with delicious ginseng or licorice\* tea. Both these teas have a stimulating effect as they improve your general sense of well being (and also your stress hormone status) and they don't bring you down to that lower low like caffeine does.

At night, take some Ashwaganda (*Withania somnifera* – the species name referring to its long-term sleep promoting effects) to help prepare your body for a restful, invigorating sleep, normalize your hormones, stimulate your immune system, and help you along the path to longevity.

If you are experiencing adrenal stress and exhaustion, or think you might be, I highly recommend you consult with a naturopathic physician\*\*, as different strategies are required for different stages of adrenal fatigue.

**4: Move toward Immunity**

Much of total immunologic action takes part in your arteries, veins and lymphatic vessels. Lymphocytes flow through these compartments to do their immune surveillance, traveling in the arteries and veins, through the blood vessel walls into the tissues and returning to the blood circulation again via the lymphatic vessels and lymph nodes that filter and eliminate bugs. Circulation in arteries, veins, and lymphatic vessels is greatly enhanced by muscle contractions. Increased blood flow and lymphatic drainage means increased immune surveillance and vigilance.

**Action Tip:**

Exercise and various treatments like hydrotherapy, far infra red sauna with contrast, massage, and dry skin brushing are all quite effective in achieving better circulation. Gentle exercise is also a great stress buster, and generally lowers cortisol. When fit, you actually might need up to two hours less sleep per night.

[Individualization hint: some people feel (a) tired and relaxed while others feel (b) tired and wired after exercise. Use your own body's response to exercise to determine if you should exercise in the mornings (b's) or evenings (a's).]

**5: ACE your Immune System**

Healthy white blood cells can contain up to 150 times more Vitamin C than blood plasma – when you are low in Vitamin C your white blood cells don't work as well.

Sufficient Vitamin C is also crucial in the healthy stress response, and is decreased by aging, smoking, stress, and not eating enough fresh fruits and vegetables. Other antioxidants like vitamins A, D, E, and most of the B's, selenium, zinc, glutathione, and beta-carotene also play an integral role in directly supporting healthy immune function.

**Action Tip:** Experts disagree on how much vitamin C is optimal for individuals. Linus Pauling took up

to 10 grams per day (10,000 mg); the RDA ranges from 15-125 mg. Amounts up to 3 grams (3,000 mg) are considered safe and will increase your immune system function dramatically.

Cod liver oil is singularly one of the most beneficial wintertime supplements. It contains vitamins A and D, and also omega 3 fatty acids – all very important in supporting mucous membrane immunity in the respiratory system that is the primary immune barrier to flu viruses. (But remember, vitamin A should not be used in pregnancy!)

## **6: Harness Plant Power**

What you eat daily can affect your immune system dramatically. Many plants and mushrooms have the amazing ability to stimulate white blood cells to greater activity, increase the rate of white blood cell production, and/or have a direct antimicrobial action. Some plants increase our resistance to stress and lower cortisol, indirectly stimulating immune function. What a bonus to have friends like these looking after us during the winter. Eating more plant foods will also displace animal proteins and meats that contain saturated fats, animal and synthetic hormones, and loads of agricultural pesticides that animal tissues bio-accumulate. We encourage you to try new ideas and add more herbs and vegetables to your diet.

**Action Tip:** Harness Plant Power by eating more fresh plant foods high in vitamins, minerals, enzymes, fiber, and good fats. Cook with shitake, maitake, and oyster mushrooms, garlic, onions, ginger, cayenne, and turmeric. Ensure adequate intake of deeply colored red, yellow, and green vegetables for a balanced blend of natural carotenes and bioflavonoids. Be creative, approach cooking with wild abandon. Make nutritious, scrumptious mushroom and vegetable soups, stews, and stir fries to energize and vitalize you through the cold grey months.

## **7: Feed Your Fighting Force!**

If you're already sick, there's no need to take it lying down. Being proactive will shorten your downtime considerably and make it less likely you will pass your illness on.

### **Action Tip:**

Feed your body's fighting force with any of the following herbs alone or in combination\*\*. They are taken different ways – in your food, as a tea, as capsules, or all of the above.

**Astragalus Root:** increases activity of killer T-cells (the body's first line of defense), macrophages and phagocytes

**Cayenne Pepper:** reduces fevers and stimulates blood circulation

**Echinacea:** stimulates the immune response by increasing T-lymphocytes, macrophages, and interferon activity

**Garlic:** is anti-microbial and anti-fungal

**Lomatium and Larch (Larix):** destroy viruses by interfering with certain processes necessary for viral replication and directly stimulate phagocytosis (literally, eating of (bad) cells)

**Olive Leaf Extract:** supports the immune system and promotes beneficial microflora. Olive leaf also contains bioflavonoids which increase its natural anti-viral activity.

**Oregano Oil:** is a powerful antibacterial agent effective in killing many types of bacteria that cause upper respiratory and intestinal infections.

**Licorice\*:** is very effective in killing viruses, including Herpes and Epstein-Barr viruses – it prevents the formation of certain viral proteins, and helps kill them in the cells where they replicate. Licorice tea can be a delicious part of your antiviral program.

Botanical medicines can be safely combined with other immune enhancing substances for quicker recovery.

## **8: Maintain Your System**

Plant sterols and sterolins can play a very important action in immune modulation. They enhance your immune system's ability to respond flexibly and adequately to acute challenges. Due to this immune balancing effect, phytosterols have some marvelous side effects. They may reduce symptoms of joint pain and stiffness, have been shown to increase T- cell proliferation by an average of 58%, support healthy prostate function, and assist in maintaining healthy cholesterol levels.

### **Action Tip:**

Maintain your immune system by increasing your intake of phytosterols - eat more plant based foods. They may also be taken as supplements. Ginseng\* and Astragalus are plants you can use longer term for enhanced immunity.

## **9: Boost by Breathing**

Breathing not only keeps you alive, but is a wonderful nervous system regulating tool. Breathing is also unique in that it is an automatic body function we have almost complete control over. Certain breathing patterns have been associated with significant increases in immunity.

**Action Tip:** To increase oxygen to your body and brain and get rid of metabolic wastes: Place your left hand on your stomach, with the center of your palm over your belly button. Place your right thumb on the pulse of your left wrist, and note your pulse rate, rhythm, and amplitude. In your mind's eye, locate three parts of the torso: belly, lower lungs, and upper lungs. Breathe into the belly, gently filling it, then move the breath into filling the lower lungs, then all the way up under the collarbones into the upper lungs. Exhale slowly with one long breath. Try to have your exhalation time twice as long as inhalation time. Repeat 6 times, then breathe regularly. Be conscious of pulse rate, rhythm, and amplitude and notice the difference. What a great in-and-out-of-office stress buster this is, and no one will know when you are doing it.

Avoid chronic disease, just breathe!!

## **10: Heal with Homeopathy**

Homeopathic medicine is one of the most effective and safe ways to focus your immune surveillance on the specific challenges winter brings. Homeopathic medicine has been in use for over 200 years, and is a well tried and trusted system of medicine. These potent medicines are very affordable, and can be considered as the “natural” flu shot. This non-chemical medicine can be administered either by mouth or through an injection to both prevent and fight flu.

**Action Tip:** Consult a naturopathic\*\* or homeopathic physician for an evaluation to find the medicine most suitable for you.

You can also try general homeopathic flu preventive medicines like Engystol and GrippHeel, Influenzinum, Oscillococcinum or Dolicocil as an effective flu preventative measure and treatment.

\* caution with high blood pressure

\*\* Naturopathic physicians can help you assess your needs and work with you to optimize your health. Ask your naturopath for advice about which nutrients are most suitable for you to make sure it is both safe and effective.