The Importance of the Adrenals in Successfully Treating Viral Infections

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FOR HEALTH CARE PROFESSIONALS ONLY

Dear Fellow Healthcare Practitioners,

Since this coronavirus has appeared, several doctors have asked me which of our products can help during the pandemic and how to use them most effectively. I am happy to do this and I also think it is important to include some of the natural therapies used successfully by myself and other practitioners to treat viral and infectious respiratory illnesses over the past 50 years. Because of the lack of preparedness of our healthcare system, you will likely find yourself treating many more ill patients, making your skills and knowledge needed now more than ever.

This is a two-part article: The first section responds to your requests for information about how to use our products and the second article covers several natural treatments I am familiar with for viral and respiratory infections. I hope this information will help you and your patients during this crisis. Please keep this as a current and future reference for effective natural methods for treating bacterial and viral respiratory infections because even if you never see another pandemic, you will most certainly see viral and antibiotic-resistant bacterial infections in the future.

Although there is no accepted medical treatment beyond palliative care for the current virus, especially in its early phases, below is a list of our products that pharmacists, physicians and other healthcare professionals have reported to be of benefit to them when treating viral sicknesses.

Prevention and Immune Fortification

Dr. Wilson's Nat-Stim®

Nat-Stim is a dietary supplement cultured specifically to fortify both cellular and humor immunity. It consists of immune-enhancing cell wall fractions from a type of Lactobacillus Bulgaricus developed by a team of physicians to supercharge the immune system, plus live Lactobacillus Bulgaricus and zinc. It is designed to be taken daily as a prophylactic to strengthen immune resistance to respiratory infections, with full effectiveness reached within 21 days and sustained with 1-2 capsule per day.

We have received many reports of people taking Nat-Stim who remained well while others around them became ill with respiratory ailments. Others reported that if they did become ill, their symptoms were less severe and they recovered more quickly than those around them who had the same illness. Nat-Stim provides its best protection when taken year-round, especially
with the now more frequent spring and summer flus occurring along with the usual winter flu season. If people around you are becoming ill and with the current Corona virus, my suggestion is to take 2 or more capsules daily for 30 days until the danger has passed, then decrease to the usual 1 per day. Personally, I am taking 4 per day and will continue doing so until the pandemic is over, after which I will decrease to 2 per day. Nat-Stim can be taken with any medication or herbal preparation or other dietary supplement. It has no toxicity, no adverse side effects and no attenuation, so it continues to remain effective no matter how long you take it.

Although designed to be used as a prophylactic, doctors have reported to us that Nat-Stim can also be used for acute treatment, especially when combined with other products. (See below in Acute Treatment of Viral Illness section)

**Dr. Wilson’s Adrenal-C Formula®**

Vitamin C is needed in much greater quantities during times of stress and illness. Linus Pauling wrote volumes on the value of vitamin C, including as a preventive for viral and other infections. Adrenal C contains multiple forms of vitamin C in sustained release caplets, plus bioflavonoids to boost vitamin C activity and the trace minerals most needed to enhance immunity: zinc, magnesium, copper and manganese in easily absorbable forms. (For a more complete explanation about how Adrenal C works, see the section below on Adrenal Function and Infections).

Dosage for Adrenal C is 2-3 caplets per day. During times of increased vulnerability, such as now, increase the dosage to 4-6 caplets spread throughout the day. If you suffer from adrenal fatigue, take 4-6 caplets per day because you not only need to support your immune system to the max, but you also need to provide adequate vitamin C to the adrenals, the greatest consumer of vitamin C in the body.

**Dr. Wilson’s Super Immune Space Sprinkles®**

Super Immune Space Sprinkles offers children the immune-enhancing combination of Nat-Stim plus generous portions of seven probiotics especially designed for young intestinal tracts in an easy to take powder form. A healthy intestinal tract is essential to optimal front-line immune defense, especially in children. Dosage is 1 scoop (¼ tsp) in a beverage or sprinkled on moist food like cereal. Kids love how the powder changes to a bright magenta color when exposed to liquids so compliance is a non-issue.

**Other Supplements for Prevention** (In addition to the products we offer)

**Zinc picolinate**

Most of our immune products contain zinc, but in these highly contagious and infectious times I recommend taking an additional 30 mg of zinc picolinate per day because it is so important for optimal immunity. Zinc takes about 3 weeks to become fully active in the immune system so, like Nat-Stim, begin taking it immediately and continue taking it until the pandemic has passed.

**Magnesium e Citrate**
Magnesium is essential for optimal immune and adrenal function. I recommend taking 400 mg per day.

**Vitamin D3**

Vitamin D modulates immune function and a deficiency, which is surprisingly common and increases susceptibility to infection. I recommend taking 250 mcg (formerly 10,000 IU) per day for 3 months, then decrease to 160 mcg (4,000 IU).

**Vitamin A (as retinol)**

Vitamin A is intimately involved in lung immune health, tissue integrity and repair. I recommend taking a minimum of 10,000 IU*(3,000 mcg RAE vitamin A or 500 mcg RAE for β-carotene) per day. One note of caution using any form of Vitamin A with smokers: several studies show that large amounts of vitamin A may be detrimental to smokers, increasing their chances of developing or increasing lung cancer.

* Recent changes in FDA nomenclature now list vitamin A in micrograms of RAE (retinol activity equivalents), replacing IUs.

**Acute Treatment of Viral Illness**

**Dr. Wilson’s Body-Guard®**

Body-Guard contains powerful herbs combined with colloidal silver designed to boost front-line defenses against infections. Although it has not been specifically tested against viruses as it has for bacteria, in the 18 years it has been in production many practitioners have reported to us its effectiveness in stemming the tide in upper and lower respiratory infections. There is a significant amount of literature supporting the effectiveness of the antiviral and antibacterial properties of the herbs used in Body-Guard.

Body-Guard is especially effective if taken at the first signs of illness. Although the usual recommended dose is 10-15 drops 4 times per day, when dealing with respiratory infections I have found it most effective to take 40 drops in a 4 oz glass of water or non-citrus juice every hour until symptoms subside (usually within 3 to 4 hours), with another 40 drops at bedtime.

If symptoms begin again (pathogens multiply in waves), do the same regimen until symptoms subside. The second time, if it occurs, is usually shorter. The following day take 40 drops as above 4 times per day, with one of those times at rising and another at bedtime. Many people find it is helpful to take 4 Nat-Stim per day plus 4 Adrenal C Formula caplets from the first signs of illness along with the Body-Guard for a quicker, deeper immune response.

**Healthcare professionals report using Body-Guard in other ways:**

**Body-Guard as a Nasal Lavage:** Stir ¼ tsp xylitol and 40 drops Body-Guard into a 2 oz glass of warm salted water. Pour a small amount of the mixture into the palm of a cupped hand. Close one nostril with the other hand, then snort the Body-Guard mixture into the open nostril,
inhaling deeply to allow the liquid to go through the turbinates, spitting out the residue. Do the same with the other nostril, lavaging each nostril 3 to 4 times per session. Repeat 3 to 4 times per day to clear nasal congestion, and to decrease nasal inflammation and irritation.

The rationale behind this is that pathogens reportedly cannot stick to nasal linings in the presence of xylitol, which works with the natural antipathogenic and cleansing properties of saltwater and Body-Guard to effectively clear the source of infection from the upper respiratory tract. Whether or not the science is sound, clinically it works.

**Body-Guard as a Gargle:** Mix 40 drops of Body-Guard in 4 oz of warm salted water. Gargle a mouthful of the mixture for 15 seconds adjusting the throat muscles to hit the sore areas in the throat. Making a sound or singing while gargling helps get to the deeper throat areas. Spit out the first three mouthfuls to remove debris that has gathered in the mouth and throat. Gargle the entire mixture. Repeat every hour for severely sore throats and 4 times daily for mildly sore throats with one of the gargles shortly before bedtime. There should be a certain amount of relief felt after each session.

**Body-Guard for Intestinal Dysbiosis:** Body-Guard can also be used for intestinal dysbiosis and intestinal upset during infectious episodes. See more under Squeaky Clean and Inner Healing below.

**Body-Guard with Nat-Stim as an acute treatment:** Although we typically think of Nat-Stim as being used prophylactically, some physicians use 4-8 capsules per day as an acute treatment along with Body-Guard to help lessen symptoms and shorten the duration of acute respiratory conditions. It should be begun at the first signs of onset to help stimulate immune function and lessen the severity and duration of the respiratory illness when the immune system appears to be in danger of becoming overwhelmed by a pathogen.

**Critical Role of Adrenals in Prevention and Treatment of Infectious Pathogens**

**Adrenal Hormone and Immune Interactions**

One of the most important and often overlooked cornerstones of prevention, treatment and recovery from viral illness is proper adrenal support. Healthy adrenal function is essential to keeping the immune system strong and fully responsive. Adrenal hormones play a direct role in the body’s ability to resist, respond to and recover from infection, as well as control inflammation.

Every type of white blood cell in the human body carries several hundred to thousands of receptor sites for cortisol. If the adrenals are not able to produce enough cortisol and other hormones during times of infection, the white blood cells throughout the body will not be adequately stimulated into action to act against pathogens. This results in decreased chemotaxis (macrophages migrating to the site of infection), chemostasis (macrophages staying in place to fight at sites of infection), diapedesis (squeezing through the fenestration of the endothelial cell junctions into the extravascular space to actively fight pathogens outside the cardiovascular
system), and stimulation of phagocytosis of neutrophils and macrophages, as well as other forms of immune actions.

During the cellular immune response, the host’s phagocytes engage in hand-to-hand combat (Th1 response) with a virus, surrounding the pathogen and spraying it with hydrogen peroxide, which perforates its outer membrane and kills it. This Th1 response is partially controlled by circulating and local cortisol levels. However, this method of killing pathogens also inflames and irritates the surrounding host tissues.

Cortisol is the most powerful anti-inflammatory in the body so if there is inadequate cortisol locally to calm the strong inflammatory conditions created by this violent cell-to-cell conflict between host white blood cells and the virus, heat shock proteins proliferate in the area signaling the phagocytes to down regulate phagocytosis in order to save excessive damage to surrounding host tissues.

This lack of local cortisol causes the immune system to switch from the powerful Th1 cell-to-cell combat response that would kill the pathogen but damage host cells to the less powerful Th2 humoral antibody response that spares host cells but allows the pathogen to survive. Thus, an inadequate adrenal response with insufficient cortisol levels allows the virus to survive and proliferate, continuing the progression of the illness.

On the humoral (Th2) side of immunity, an inadequate adrenal response with insufficient cortisol levels results in lower IgA, IgG and IgM numbers and responsiveness, further limiting even the Th2 response. Thus, both cellular and humoral immunity are drastically compromised by an inadequate adrenal responsiveness, along with other bodily functions related to successfully overcoming the virus and reestablishing healthy homeostasis in the infected individual.

There is evidence that hypocortisolism exists in SARS patients and is long-lasting even after supposed recovery from the infection. In one study, 39.3% of patients still had hypocortisolism three months after recovering from SARS. [Leow MK, et al. Hypocortisolism in survivors of severe acute respiratory syndrome (SARS). Clinical endocrinology (2005); 63, 197-202.]

Another study demonstrated that, in at least some patients, SARS, like influenza, partially inhibits the host corticosteroid stress response. It appears that certain amino acid sequences in the virus are identical to parts of adrenocorticotropic hormone (ACTH) secreted by the anterior pituitary. Thus, when the body’s own defenses secrete antibodies to the virus, the antibodies also attach to the ACTH, disabling it and preventing it from activating the receptor sites in the adrenal cortex. This leads to a much lower adrenal response in these virus-infected patients [Wheatland R. Molecular mimicry of ACTH in SARS – implications for corticosteroid treatment and prophylaxis. Medical hypothesis (2004) 63, 855-862.], resulting in the compromised immune response described above.

**Blood Sugar, Cortisol and Immune Function**

Maintaining adequate blood sugar and electrolyte balance is very important in the body’s defense against viral infections. Without adequate circulating and intracellular blood sugar, the host response to infection is compromised. Glucose is the main cellular fuel for creating the ATP
needed to power the fight against infection, maintain homeostasis, and conduct tissue repair, detoxification and all the other many thousands of actions each cell does to contribute to bodily needs.

Cortisol is essential for maintaining adequate blood glucose via gluconeogenesis, especially in times of crisis. When an increased defense against pathogens is needed, blood glucose must elevate to provide the extra ATP for energy to activate all aspects of immunity, such as raising a fever, producing lymphocytes and antibodies, and increasing intracellular antioxidant production and anti-inflammatory defenses, along with a myriad of other cellular enzymatic processes.

Considering the above, it is clear how critical adequate adrenal function is to every aspect of fighting viral infections – from the initial protective immune response to rapid post infection recovery and future resistance. Unfortunately, many people are walking around unaware that their immune function is compromised due to stressful lives that have resulted in suboptimal adrenal reserves, leaving them more vulnerable to a severe viral infection.

With this in mind, one of the first things I suggest you do for yourself and your patients is to assess adrenal function. The simplest way to do this is by taking the adrenal fatigue self-grading questionnaire (on page 61 of the book, Adrenal Fatigue: The 21st Century Stress Syndrome, or free online at www.adrenalfatigue.com). The questionnaire is also available for you to have in your office, on your own letterhead if you desire, at no charge, by emailing Team@icahealth.com). Scores above 34 indicate the need for adrenal support to optimize the immune response to any type of infection.

In addition to the questionnaire, do the four clinical tests for adrenal fatigue as described in the book (Chapter 10, pages 77–81). Of course, a salivary, blood spot or urinary confirmation test of adrenal fatigue is always helpful, but you may not have time to do these tests and get the results back before treatment needs to be begin, especially when there is an active viral infection going around. If the questionnaire is positive and two or more of the clinical tests are remarkable, assume there is an immediate need to start adrenal support as soon as possible, if it is not already being done prophylactically, to give the immune system a better chance of fighting the illness.

**Treatment of Adrenal Fatigue as Part of Intervention Protocol in Viral Infections**

**Use of Dr. Wilson’s Adrenal Fatigue Protocol®**

Dr. Wilson’s Adrenal Fatigue Protocol consists of the four dietary supplements described below, designed to be used together to comprehensively support the health and optimal function of the adrenal glands and the entire hypothalamic-pituitary-adrenal (HPA) axis. This is a case of the whole is much more than the sum of its parts, with each of the four products adding its part but, taken together, they provide a much higher level of support for adrenal responsiveness. So even though they are listed individually below, they are meant to be taken together.

*Dr. Wilson’s Adrenal Rebuilder®*
Adrenal Rebuilder supplies the raw glandular material of the adrenal cortex, hypothalamus and anterior pituitary, processed to remove hormones, to support repair of damaged or depleted HPA axis components. Considering the finding that hypocortisolism in SARS can be caused by ACTH antibodies, Adrenal Rebuilder may also help more ACTH reach the adrenal cortex during a coronavirus attack, although we have no direct evidence for this. What we do know about Adrenal Rebuilder is that we have many testimonials about its observed benefits in illnesses where the adrenals were involved, including viral infections.

**Dr. Wilson’s Super Adrenal Stress Formula®**

Super Adrenal Stress Formula provides bioavailable forms of the specific nutrients used by the adrenals in the adrenal hormone cascade and in cellular energy production to optimally respond to viral infections. During times of stress, the adrenals use much higher quantities of certain nutrients to produce the needed 50-some hormones secreted by the adrenals. This complex and comprehensive formula was developed over decades of clinical practice especially for patients suffering from stress and adrenal fatigue. The sustained release caplets optimize absorption and cellular utilization of the nutrients.

**Dr. Wilson’s Adrenal C Formula®**

Adrenal C Formula provides sustained-release, pH-balanced vitamin C with manganese, zinc, copper, magnesium and bioflavonoids. Both the adrenals and the immune system require much more vitamin C during stress and illness. In addition, this formula is designed to boost cellular antioxidant and anti-inflammatory defense by providing these mineral cofactors necessary for superoxide dismutase (SOD) antioxidants in the cytosol and mitochondria. These mineral requirements also rise with increased stress. Bioflavonoids increase the antioxidant activity of vitamin C and, along with the minerals, help counter the acidity created by stress.

**Dr. Wilson’s Herbal Adrenal Support Formula®**

Herbal Adrenal Support Formula contains four adaptogenic herbs combined to help balance HPA axis activity and sensitivity, providing increased homeostasis support during times of homeostatic disruption, such as stress and viral illness.

**Dr. Wilson’s Adrenal Fatigue Protocol Dosage Chart**

The recommended dosages for taking the Adrenal Fatigue Protocol has been laid out in an easy-to-use chart showing doses for all three levels of adrenal fatigue. To access the Dr. Wilson’s Adrenal Fatigue Protocol Recommended Dosage Chart, log into our healthcare practitioners-only ICA Health website at [www.icahealth.com](http://www.icahealth.com) and click on “Working with Adrenal Fatigue” at the top of the page. The dosage chart can be viewed under the “Dr. Wilson’s Program for Adrenal Fatigue”. If you need assistance with logging onto the website, locating the chart, getting answers to your questions, creating a new online account or help with a password, please email [team@icahealth.com](mailto:team@icahealth.com) or call 1-888-ADRENAL (1-888-237-3625).

**Other Products for Adrenal and Stress Support**
**Dr. Wilson’s Adrenal POWER Powder®**

Adrenal POWER Powder is a powdered form of the four products in the adrenal fatigue protocol with additional nutritional and energy ingredients. When someone is ill, they often lack appetite and may have difficulty swallowing pills, especially when lying down. If the patient is unable to take supplements, Adrenal POWER Powder can be used to provide adrenal and energy support. Although it is less potent than using the full protocol, it is still effective. Mix (blend) 1 scoop with a smoothie, milk or other liquid and take in small amounts. Repeat 4 times daily. It is especially useful to boost energy at the beginning of the day.

For caregivers and healthcare providers who tend to push themselves while looking after others, Adrenal POWER Powder is great way to grab a quick, nutrient packed pick-me-up once or twice a day between patients.

**High Cortisol and Immune Function**

Cortisol levels can sometimes be too elevated or be elevated for too long. This is especially true in highly stressed individuals whose adrenals are still strong but challenged by their overall stress load. Unfortunately, if cortisol levels are even mildly elevated, they begin to shut down the immune system and compromise the host’s ability to resist infections such as the coronavirus. High levels of cortisol can actually kill T-lymphocytes.

This is part of the danger of chronic use of corticosteroids, as well as chronic stress. Elevated cortisol can so compromise the immune system that it can cause actual atrophy of the thymus gland, the main gland for maturation and sensitizing of T-cells. Biopsies of young soldiers who were killed in battle showed many of their thymus glands to be shrunken and grey like an elderly person, rather than the fresh pink expected of a young man.

**Dr. Wilson’s Cortisol Stress Reset®**

Cortisol Stress Reset is designed to help normalize aspects of stress overdrive, including elevated cortisol levels, dysregulated HPA axis function, anxiety and sleep disturbance. It is useful for people under constant stress, or who have metabolic syndrome or suffer from other stress-related conditions involving elevated cortisol levels.

Cortisol Stress Reset is a combination of cortisol-moderating nutrients and neurotransmitter balancers designed to produce a calming, steadying effect on people under stress. One of the most consistent comments we receive about Cortisol Stress Reset is that it helps people fall asleep and improves sleep quality when taken at bedtime. They also reported feeling more refreshed upon awakening. Interestingly, although Cortisol Stress Reset helps lower elevated cortisol levels, it does not appear to lower normal or low cortisol levels. Dosage is 1-4 caplets per day depending upon the patient’s stress level. If there is difficulty sleeping, take 1 of those caplets 30 minutes before bedtime.

**Caution for People Taking Corticosteroids**

The adrenal glands secrete approximately 20 mg of cortisol per day. Common corticosteroids such as prednisone and prednisolone are approximately four times as powerful as
hydrocortisone, meaning that as little as 5 mg of either drug or their equivalent totally replaces the total daily adrenal output. In some cases, this causes the adrenals to partially or, in a certain percentage of cases, totally shut down. This makes the person on corticosteroids, including inhalers, especially vulnerable to infections of all types, especially contagious viral respiratory infections. This is a well-established medical risk for patients on corticosteroids.

High levels of corticosteroids also slow the healing and recovery process. If you have a patient who is taking corticosteroids on a regular basis, including steroid-based inhalers, such as those with asthma, autoimmune disease, organ replacement or anti-inflammatory illness, know that these patients will probably require special care and should be referred to a hospital immediately if they develop a fever and/or show any signs and symptoms of a respiratory illness.

These patients can quickly become medical emergencies that require hospital medical care and are the ones you are most likely to lose. Always have a patient advise the hospital staff if they are on corticosteroid therapy, and know the name of the medication, dosage, length of time they have been on the medication(s) and for what condition(s).

**The Importance of Healthy Digestive Function During Illness**

During times of infection, especially of the lungs and intestinal tract, the microbiome becomes upset, disrupting the entire digestive system and consequently homeostasis of the entire body. As the old Chinese saying goes, “Health (and disease) begins in the intestines”. Viruses that affect the lungs can also infect the intestinal tract. COVID-19 (SARS CoV-2) has now been isolated from feces, so we can confirm this is true for the current pandemic. Therefore, it is important to keep the intestinal tract free of debris and functioning normally.

We must continue to replace beneficial bacteria to battle the viral infiltration and remove the pathogens from the intestinal tract as soon as possible to prevent it from getting established in the intestinal tract. A useful naturopathic principle is “as above, so below”. That is, when the respiratory system is affected, also treat the intestines.

**Dr. Wilson’s Squeaky Clean®**

Squeaky Clean is a combination of multiple forms of fiber, probiotics, prebiotics, enzymes, clay and soothing herbs. It is designed to remove unwanted debris from the small and large intestines and help reestablish a healthy intestinal microbiome. Squeaky Clean is not a laxative but it promotes regularity while removing debris along the intestinal villi, microvilli and the brush border of the small intestine, as well as holding that debris in suspension in the bolus to be evacuated while simultaneously re-inoculating the intestinal tract with prebiotics and probiotics. Its combined actions promote optimal intestinal immune function and health. Dosage is 1-2 capsules per day taken with a large glass of water, preferably at bedtime.

**Dr. Wilson’s Inner Healing®**

Inner Healing contains nutrients and herbs formulated to help promote intact, healthy GI tract mucosa and repair damage, and calm the inflammation and irritation that can occur during an infection. This also helps minimize or prevent leaky gut syndrome. Dosage is 1-3 caplets per
day. Most patients who take Inner Healing also use Squeaky Clean to obtain a greater combined effect.

For patients with light, uncomplicated upper respiratory infections, implementing all the above suggested protocols is often sufficient. However, if a turnaround is not seen within 48 hours or respiratory symptoms increase, additional ancillary treatment should be begun immediately to limit the severity of the illness, speed recovery and increase the comfort level.

The second part of this series on additional ancillary treatment of viral infections will concentrate on natural healing methods used by healthcare practitioners to treat viral infections.

**Scientific References for our Product Ingredients**

To review scientific references from peer reviewed articles regarding the actions and efficacy of ingredients used in our supplements, log into our healthcare practitioners only ICA Health website at [www.icahealth.com](http://www.icahealth.com) and click on “Scientific References” in the lower left corner of any product web page. Fact sheets for each product can be viewed under the “Clinical Resources” on the same product page for each product.

If you have an account and have forgotten your login name &/or password OR if you have not purchased directly from us, please email team@icahealth.com or call 1-888-ADRENAL (1-888-237-3625).