

News and Views Summer 2009

H1N1 and You – The New Flu

The most recent status update from the Ministry of Health and Long Term Care to health care professionals regarding the pandemic H1N1 outbreak is to not test for the flu strain any longer but to screen and treat people accordingly. This involves advising them of voluntary self-isolation for 7 days from the start of symptoms, to drink warm fluids and take medications for fever, cough or other symptoms as needed. Does this seem like a big scary flu pandemic or more like the common cold on steroids? The answer requires some historical perspective.

The Spanish flu in 1918 started in the spring and summer much the same way, with a cold virus that caused mild symptoms but was very contagious. It did not reach epidemic or pandemic proportions until the fall, causing numerous deaths at that time because the same virus changed and became far more virulent. Here and now in 2009 we have advanced hygiene practices and scientific data to monitor for changes that demonstrate an increase in a virus's ability to spread easily and cause more harm in humans. In essence this is an infectious disease caused by a virus which has the potential to change within 6 months and become far more virulent, just like the 1918 Influenza outbreak. To influence matters further, as of June 11 2009 the WHO has raised the pandemic alert level from Phase 5 to Phase 6, indicating that a pandemic is underway, and is based on sustained human to human transmission, not viral severity. This means it is highly contagious, but not lethal in healthy people.

If you are worried and wondering if a new vaccination will help you, there is more that can be done. The first step that you can make is to determine if you can make yourself healthier, if you can improve your immune system and the cellular 'terrain' of your body. The immune system is composed of a number of cells which coordinate their efforts and signals to and from each other much like a network of computers sending emails in order to get a project completed. While the computers rely on electricity, the immune cells rely on nutrition and hydration to function optimally. The best evidence indicating immune function improved through nutrition states that specific nutrients (zinc, vitamin D, melatonin, and antioxidants^{1,2,3,4,5,6}) and the general terrain^{7, 8, 9, 10} of the host (human body) BOTH contribute to the overall function of the immune system and the survival of the host during a viral infection. It is not just one or the other, so taking your vitamin C while eating barbecued foods is not going to promote your health. Your

lifestyle and your nutritional status compose the sum of your health.

There are other well-qualified nutritional approaches to immunity, such as cod liver oil and vitamin C, which are well-known to promote immune function. Other approaches to optimal immune function have to do with pH. To simplify, there is evidence that demonstrates that the cellular activity of leukocytes is decreased when the extracellular milieu pH is decreased (acidic)⁷. Impaired lymphocyte activity is also evident under acidic conditions⁷. Cytokines responsible for inflammation are also sensitive to pH as well¹⁰. In summary the following are proven to be helpful in viral immunity:

1. Selenium - supports the optimal host immunity and prevents viral mutations which increase virulence.
2. NAC/Glutathione (by IV) - maintains redox equilibrium in respiratory epithelial cells and macrophages to inhibit viral replication and prevent hyper induction of cytokines
3. Resveratrol - inhibits viral replication and down-regulates the activation and production of proinflammatory cytokines
4. Quercetin - stabilizes inflammatory cells such as mast and cytokine cells.
5. Curcumin - which I mentioned in the winter 2008 newsletter, stabilizes inflammatory mediators and provides excellent antioxidant protection.

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Your Health, Vitamin D Levels and Sunscreen Use Are Related.

Naturopathic Doctors are notorious for their numerous questions regarding gastrointestinal health and bowel movements. While it might be found similarly strange to inquire about the amount of sun exposure in a patient who has just been diagnosed with colon cancer, there is a reason why: Numerous studies correlate vitamin D deficiency with not only cancer of the colon, but of the breast and the prostate. Vitamin D acts an effective regulator of cell growth and differentiation in a number of different cell types, it increases cancer cell apoptosis (programmed cell death in abnormal cells), reduces metastasis and proliferation of cancer cells, and reduces angiogenesis^{8,11} (the ability of the cancer cell to stimulate blood vessel production to the tumour itself). Except during the summer months, the skin makes little if any vitamin D from the sun at latitudes above 37 degrees north (anything north of Texas, U.S.) or below 37 degrees south of the equator. People who live in these areas are at relatively greater risk for vitamin D deficiency^{6,9}. The use of sunscreen, in part, is being blamed for this deficiency. After a government campaign to increase sunscreen use in Australia, a vitamin D deficiency was identified.

The *inverse* relationship between squamous cell skin cancers and the development of internal cancers has been documented repeatedly. This inverse relationship led to one of the first modern, but erroneous, theories of cancer - that squamous cell skin cancers conferred immunity against various visceral (organ) cancers. It is now known that this correlation is better explained by the fact that sun exposure increases both squamous cell skin cancers and calcidiol levels (vitamin D levels in the blood that are chemoprotective)⁷.

Though it is not advocated that one spend so much time in the sun so as to increase the risk of squamous (or basal) cell carcinoma, it is important to understand the protective effects of responsible exposure to the sun. It is also important to recognize that squamous cell skin cancers are easily treated when caught early and that fewer than 600 Americans die every year from squamous cell skin cancers compared to tens of thousands who may be dying from internal malignancies induced by vitamin D deficiency. With all of this in mind, it is again, *responsible* exposure to the sun that must be emphasized.

The rays of the sun consist of ultraviolet light classified as UVA and UVB. Until recently, sunscreen was virtually devoid of UVA protection. UVA is considered more harmful, penetrates the skin more deeply, and causes free radical damage. According to a 2009 study, UVA causes DNA damage to cells deep within the skin, increasing the risk of malignant melanomas⁴. UVA does not cause reddening of the skin or pain of a burn to the degree of UVB. It is constant

during all hours of daylight through the entire year and can penetrate through cloudy coverage and pollution.

UVB is considered helpful as it builds vitamin D through its interaction with cholesterol; however, UVB will cause sunburn and its subsequent pain. UVB is low in the morning and evening and high at midday. As much as 20,000 units of vitamin D may be made after being in the sun for 20 minutes. Unprotected exposure to UVB is best limited to those 20 minutes per day as too much UVB exposure is linked to both squamous and basal cell carcinoma.

The SPF of a sunscreen is a laboratory measure of the effectiveness of sunscreen — the higher the SPF, the more protection a sunscreen offers against UVB only (the ultraviolet radiation that causes sunburn). Some epidemiological studies have indicated an increased risk of malignant melanoma for the sunscreen user because it was only recently sunscreens have been protective against UVA, leaving the protected skin against UVB to be exposed to UVA longer than it would otherwise be since a burn would take longer to develop^{2,4}.

The Environmental Working group is an American non-profit, non-partisan environmental group that compiled a list of nearly 1000 brand name sunscreen products in 2008 as a response to the concern over the chemical make-up of many of the most common commercially available sunscreens. Their database can be found using this link: <http://www.cosmeticsdatabase.com/special/sunscreens2008/index.php>. In 2007 two studies by the CDC highlighted concerns about the sunscreen chemical oxybenzone, one of the four active ingredients in most sunscreens. The EWG cautions the use of oxybenzone as it has been shown to have developmental/reproductive toxicity, immunotoxicity and allergenic potential. The other chemical ingredients, Homosalate, Octyl Salicylate, Octinoxate, and Octisalate have also elicited red flags for safety. Zinc oxide is among the three best agents for protection against UVA and is becoming increasingly common in natural sunscreens. *Badger*, a brand of such sunscreen that is available at *The Armstrong Clinic for Naturopathic Medicine*, was rated the number one sunscreen for its efficacy and environmental conscience in 2008 with a safety rating of zero (on a scale of one to ten; ten being least safe).

A responsible consumer, who wishes to protect oneself against cancer of various types, as well as defend oneself from depression³, immune suppression¹ and cardiometabolic syndrome^{5,9,10} that are also linked to a vitamin D deficiency, should implement the following as a safeguard:

Salivary Hormone Testing - Reigning in on Hormone Testing and Control.

1. Ask for levels of Vitamin D or 25-hydroxy vit D (calcidiol) and 1,25 hydroxy vit D (calcitriol) to be tested routinely with annual bloodwork. Levels should be between 35 and 65 ng/ml of calcidiol year round for best protection.
2. Chose a sunscreen that is chemical free, and is protective against UVA and UVB with zinc oxide.
3. Allow for 20 minutes of unprotected skin exposure to UVB rays midday.
4. Choose dietary means of lowering cholesterol instead of pharmaceuticals when possible as cholesterol is necessary for vitamin D production.
5. Chose a high-quality cod liver oil as a source of vitamin D for the winter months.

While they may not be as obvious on first glance, your health and cancer prevention is related to the amount of Vitamin D produced after sun exposure, and sunscreens stop this production altogether, making you more susceptible to cancer development as a result of Vitamin D deficiency. Choose and use your sunscreen wisely to allow for the best benefits of sun exposure. Speak to your Registered Naturopathic Doctor if you have any questions.

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What is saliva testing used for?

Saliva hormone testing is most useful for uncovering hormone imbalance in men and women. There is a common misconception that only free hormone found in blood is available to a target tissue. That is, for example, that generally only Follicle-Stimulating Hormone (FSH) found in the blood would be available to act on the ovaries to produce estrogen. However, research over the past 20 years indicates that *all* forms of a given hormone are available to the tissue. Free hormone levels tested through blood work underestimate bio-available hormone levels available in other fluids as well, such as the saliva. Thus, measuring free hormones only in the blood may not accurately reflect all that is being delivered to and used by that tissue. In addition, the saliva allows for a better reflection of the amount of hormone that *actually* gets into tissue rather than what *might eventually* get into tissue. Salivary testing better reflects tissue bioavailable hormone levels.

Where can I get my salivary testing done?

At *The Armstrong Clinic* both blood and saliva testing are utilized to assess overall hormone function of a given endocrine organ system to best outline details of treatment. For example, we use blood testing to measure FSH and LH, while we use salivary testing to measure estrogen, progesterone, DHEA and testosterone.

Why should I test my salivary hormones?

Establishing baseline measures of hormone levels in an individual allows for tailor-made dose and scheduling of hormones, where the results show deficiency. This is important to achieve optimal outcomes and prevent over-dosing and hormone overload, which leads to proliferative cell growth and early cancerous growth in tissues with receptors to specific hormones. Call today to get your salivary hormones tested before you start any hormone treatment.

Naturopathic Oncology at the Armstrong Clinic

Cancer is highly complex, and treating it requires a profound understanding of these complexities. It is not simply the result of a pH imbalance in the body, or a yeast infection, or a bacterial infection or any other single assault on the body. A cancer tumour is the effect of numerous processes that have gone from their functional roles into a dysfunctional role over a long time span. In the comparative, treating a fever instead of the infection causing it and treating the tumour without addressing the cause behind it are both short-sighted.

Understanding how tumors develop and how tumour growth can be controlled is the basis for integrative complementary oncological care. Cancer treatment under this approach does not only consist of surgical removal of tumors, chemotherapy or radiation, but also includes supportive and restorative therapy aimed at regenerating and increasing the body's own resistance. This is for the purpose of normalizing cell processes and reducing any therapy-related damage.

At the Armstrong Clinic for Naturopathic Medicine we view each person with cancer as a unique individual, not a patient case. We are actively involved in helping the person to understand their treatment options and empower them in taking responsibility for their decisions and their health. Our Naturopathic Oncologist listens to you, discusses with you the meaning of all the tests, results, reports and answers your questions, and then together you decide on the where necessary. This is a very overwhelming time for anyone who has been diagnosed with cancer, and it is important to understand everything before making any further decisions. We also make every attempt to work with your oncologist and suggest second opinions where necessary.

In the next column are answers to some of the commonly asked questions:

Can you cure my cancer? Yes and No

To be brief, it depends on the type and staging of cancer that a person has. Your survival through cancer can be enhanced with surgery if the tumour is localized and not invasive. To summarize, the earlier the cancer is found, the better the chances of survival. We have many patients who continue to live their lives free of cancer because of early screening practices used at our clinic.

Do you work with my Doctor? Oncologist?

Yes we do. Most often, however, your oncologist or MD is unfamiliar with what is done in the complementary treatments and will not encourage you to try them. This is unfortunate, and the Armstrong Clinic addresses this by providing evidence available to support the use of everything that is recommended. We are always providing progress reports and communicate regularly where possible with all the health care professionals you are working with. We follow the person's directions and choices in their communication with their MD or oncologist wherever possible.

How much does it cost?

This depends on the treatment choices made. Our treatment options consist of orthomolecular nutrition, homeopathy, acupuncture, infrared sauna, Intravenous Infusion, subcutaneous injection, and dietary change, sleep, exercise and stress management. Cost re-imburement may be available for people completing conventional oncology therapy (surgery, radiation or chemotherapy) through extended employee benefits insurance. Ask your insurance provider for specific details. There also are financial aid programs available through provincial government that you are eligible for through your oncologist and medical doctor referrals.

Change of Heart Program and *FirstLine Therapy*

Better Health—Now and For a Lifetime

The Change of Heart Program is a first line treatment for common, chronic health problems, prevents chronic disease in the future and improves health and quality of life. The core of the Change of Heart program is *FirstLine Therapy* which is a therapeutic lifestyle program that empowers people to make positive choices every day that will enable you to achieve a long, full, and healthy life. *FirstLine Therapy* can effectively address:

Area of Concern	Health Conditions
Cardiovascular issues	Heart disease, high blood pressure, high cholesterol, stroke
Blood sugar issues	Type 2 diabetes, insulin resistance, hypoglycemia
Obesity	Cardiovascular disease, type 2 diabetes, cardio metabolic syndrome
Gastrointestinal health	Irritable bowel syndrome, Crohn’s disease, ulcerative colitis, autoimmune disorders
Men’s health	Low testosterone, low sex drive, loss of vitality and muscle tone
Women’s health	Menopause, hormone imbalance, premenstrual syndrome
Mood and cognition	Alzheimer’s disease, depression, poor memory or lack of mental clarity
Musculoskeletal (bone & joint) disorders	Osteoporosis, osteoarthritis
Stress-related issues	Fatigue, sleeplessness, poor overall health

How FLT Works

One of the reasons diets and exercise programs fail is they are one-dimensional—meaning they focus only on weight loss. *FirstLine Therapy* isn’t just about weight loss; it’s about achieving a lifetime of good health. So instead of counting calories, you’ll learn simple steps to help you take control of your specific health situation. The program will teach you easy ways to track your progress, give you tips for success, reminders, and other support that will help you achieve your goals and maintain your health improvement. The Change of Heart program with *FirstLine Therapy* will help you: address the underlying cause of common health problems, take control of your health by providing you with the necessary tools, live your life in a way that improves your health, feel good now, and maintain good health for years to come. *FirstLine Therapy* works because its basic principles are in accordance with the most current scientific research. It addresses the underlying causes of disease, not just the symptoms and helps you take simple steps that you can make part of your lifestyle - for life!

Are you ready to take the first step toward better health?

There’s no better time than now to begin your journey toward good health! Ask the Armstrong Clinic about the Change of Heart Program and *FirstLine Therapy* today.

Useful Tidbits and Other Information:

- ❖ Have the bugs been biting, leaving itchy red welts and lots of swelling?

We recommend you try an inexpensive, all natural and chemical free answer from HOME HARDWARE. The Insect Defend Patch is a Vitamin B1 skin patch that you stick on to your skin and it repels bugs for a full 36 hours. Plus, it is good for kids and does not interfere with your outdoor hobbies. Try it today, you won’t regret it.