

Health Update - Understanding Colds and Flu: Their Prevention and Treatment

Did you catch our Internet Radio Show on “Cold & Flu Prevention and Treatment”? It is available in the webcast archives at www.healthcoach.ca/radio/.

Many medical experts consider the influenza virus (cause of the "flu") to be the most dangerous virus in the world. Each year about 20,000 people in North America die from the flu. Several times in past history, this virus has been responsible for killing huge numbers of people within a 1 to 2 year period. As an example, the "Spanish flu" (type A [H1N1]) of 1918-19 killed about 500,000 people in the U.S. and at least 20 million people worldwide. In 1957-58, the "Asian flu" (type A [H2N2]) resulted in 70,000 deaths in the U.S., and in 1968-69, the "Hong-Kong flu" (type A [H3N2]) killed 34,000 in the U.S.

Because of the health risks the influenza virus creates, vaccines were developed to help protect us. The risks from receiving a flu shot are quite minor relative to the risk of not for those who need it most – those at highest risk, such as babies, pregnant women, people over age 65, or those with a compromised immune system or a chronic disease.

The choice of whether to receive a flu shot or not, is not the only one to be made though. This choice may not even be the most important one for many with respect to how healthy they will stay throughout this year's cold and flu season.

What is the Flu?

Let's pause here and take a moment to get a clearer picture of what the "flu" really is. Terminology and language can be fickle and non-specific masters, and so the common day-to-day use of the term "flu" has evolved to often encompass anything from a "common cold" to a true "flu". The "stomach flu" is another misleading term, often used to describe a gastrointestinal illness (the "stomach flu" is usually not even caused by a virus but by other microorganisms). So, the first critical point to understand is that the "flu" is not a common cold or a stomach infection.

When researchers or doctors speak of the "flu", they are being very specific and mean an infection by the influenza virus. Epidemic influenza is divided into type A and type B. The most common presentation of influenza includes a fever (usually 100-103 degrees F in adults), respiratory symptoms (such as cough, sore throat, runny or stuffy nose), headache, muscle aches, and, often extreme fatigue. So, the second key point is that public health officials and doctors mean influenza virus when they use the term "flu".

The year-in, year-out "flu" can be deadly as we have just discussed, especially for babies, the elderly, people with compromised immune systems, or those who have an existing chronic health condition, such as asthma, diabetes or heart disease. Even for those of us who are in generally good health, the "flu" can still really "take the wind out of our sails", and cause us to feel miserable for several days to a week or two.

Currently there are several main subtypes of the "flu" in circulation. These subtypes are broken down into 2 families -- type 'A' and type 'B'. The type A family subtypes are the "Hong Kong" type A (H3N2) virus and its relatives (responsible for about 400,000 deaths in the United States since 1968 (90% of which are among the elderly), and distant relatives of the "Spanish Flu", type A (H1N1). Since 2001, a new subtype of influenza A – type A(H1N2) – has been found in several parts of the world including North America. Whether this new flu subtype will go into long-term widespread circulation and cause the same problems as the other type A subtypes is uncertain. Only one form of type B influenza virus is in circulation. When describing the subtype of influenza, the "H" and "N" refer to viral proteins called haemagglutinin (H) and the neuraminidase (N).

Some medical and public health experts believe it is only a matter of time (in fact they think we are overdue) before a new pandemic (worldwide epidemic) of the "flu" occurs, killing many, many people.

Why has the flu been able to kill such large numbers of people so quickly in the past?

We are going to oversimplify here, but follow along. The "flu" virus is able to genetically rearrange itself or change over time, allowing it to re-infect us year after year. Usually this is a slow and very gradual process of genetic rearrangement (both type A and B influenza virus can change in this manner).

As an example, if you were exposed to last year's "flu" virus, your immune system would have created a very specific immune system memory of how to effectively deal with the virus. A new exposure to the same identical virus would not now be a problem. However, since the virus changes a slight amount each year, last year's immune memory will not completely protect us from this year's influenza infection. But the building blocks of immune system memory will be in place (assuming we have a competent immune system) so soon after infection, most of us will mount an aggressive immune system response. We might feel 'fluish' for a few days to 2 weeks, but our immune system will eventually sort things out.

Getting a flu shot, simply acts as a form of immune system teaching; the immune system is given a reminder of what the circulating types of influenza virus look like. This allows it to be a bit better prepared should it encounter the virus. So the flu shot basically speeds up the recall and response process. It doesn't mean you are immune to the flu. It doesn't mean you won't get it. It just means that if you do get exposed to it your immune system will have a bit of a head start in terms of knowing what to do and beginning to do it.

However, you should also be aware that every once in a while, the type A "flu" virus (the type B does not change in this manner) can have a big change to either its haemagglutinin (H) and/or neuraminidase (N) proteins. This results in a new strain of the virus, which is not recognized as something your immune system dealt with in the past. When there is this type of big genetic rearrangement it isn't even something the flu shot can protect against. The reason for this is that the flu shot is designed based upon the types of flu virus in circulation, not those that might suddenly come into existence.

In other words, a flu shot can only teach you to recognize and respond to the types of flu that we already know are in circulation. If a brand new subtype pops into existence, a vaccine is relatively useless, because none of the new subtype would be represented in the vaccine. This is important – a flu vaccine only teaches our immune system about the known existing subtypes of influenza that are already in circulation; it doesn't and can't prepare us should there be a big genetic change in the circulating influenza viruses.

Why is this important? It is important because in the years that the "flu" virus became a worldwide epidemic and killed millions of people, the "flu" virus underwent big genetic rearrangement and changed in this

manner. If this type of big genetic rearrangement were to happen again (and many experts believe it is not a matter of “if” but “when”), the flu shot would not afford a great deal of protection. In fact, if there is a significant genetic rearrangement of the virus, it might not provide any protection. The only thing that could protect us if the ‘flu’ virus undergoes a big genetic rearrangement is having robust anti-viral immune system defenses.

Is there a role for homeopathic medicines here?

This is not the place to go into the theories behind homeopathic medicine, but many years of clinical experience and many thousands of clinical trials have demonstrated certain homeopathic remedies to be uniquely effective and completely safe to infants and elderly alike. Homeopathic remedies can be used as part of your immune system training, in similar fashion to the flu shots we have been discussing. They can also be used as a part of the treatment to minimize or eliminate the symptoms of an acute cold or flu infection. Readers are encouraged to discuss if homeopathics should play a role in their personal cold and flu prevention program with their Health Coach. (Note, those at high risk to harm from influenza should not consider themselves suitably protected by either the flu shot or the homeopathic equivalent alone.)

Whether it is a typical ‘flu’ year, when very little genetic rearrangement of the virus occurs, or an unexpected year, when the ‘flu’ virus in circulation is very different from last years ‘flu’, a ‘flu’ shot is only part of a proactive approach. A comprehensive proactive approach would also include (1) nutritional strategies to maximize ‘seroconversion’ to the vaccine (Note: seroconversion is the process of immune system learning and response to the vaccine), and (2) homeopathic, nutritional and lifestyle actions to build robust anti-viral immune system defenses. Do you want to be proactive in a comprehensive way and be ready for this year’s flu season?

What can I do to be proactive in a comprehensive way?

Step 1: If you are going to get the flu shot

If you are going to get the flu shot it’s important that you get the most benefits out of it. For the flu shot to work the way it is supposed to, our immune system must actually learn from it. This process of learning is called ‘seroconversion’. This simply means that our immune system responded to the vaccine and created the specific type of memory cells the vaccine was intended to create. This process of learning can be improved by optimizing your nutritional status. To ensure you get the type of nutritional support to best prepare your immune system to learn and respond appropriately (‘seroconversion’) to the flu vaccine make sure you complete a Health Coach[®] Assessment and answer “Yes” to the question that asks:

Will you be having any **upcoming vaccinations** in the next 6-8 weeks?

Answering “Yes” will ensure that your individualized nutritional program will identify and recommend nutritional factors with an ability to enhance and support this important ‘seroconversion’ part of the vaccination process. [If you’re already on a custom nutrition program through your Health Coach, and have been for several months, your levels of key nutrients may well have been optimized already, but due to seasonal variations in our assessment recommendations and depending on when you last updated your assessment, you’re best to check and make sure you’re program is a 2007 Fall or Winter update.

Optimizing our nutritional levels of vitamins C & E, adaptogenic herbal support, and ensuring adequate probiotic bacteria intake and trace mineral intake are some of the important nutritional steps that can prepare your immune system to have the appropriate “seroconversion” to vaccines. Within the Health Coach[®] Assessment, built-in logic and associated rules automatically adjust for seasonal variations in your needs for these nutrients.

Step 2: Whether or not you get the flu shot and/or homeopathic preventive support:

The best defense is a good offense. Improving the capabilities of our immune system's anti-viral defenses before we get sick is a far more proactive health strategy than would be waiting to support our immune system after we are already sick. With this in mind, nutritional and botanical strategies exist which have an ability to support our immune system defenses so that these defenses can (1) reduce the likelihood of getting a cold and/or flu, (2) accelerate our recovery time should we get exposed, and (3) minimize the likelihood of having any type of post-viral infection complication. An immune enhancing herb called Andrographis has been found to improve our immune system's performance against viral assaults, especially when combined with other key nutritional elements, in a way that supports all of the above. An adaptogenic herb called Ginseng also can be of benefit in maximizing the memory and response features of our immune system to ensure that we are better prepared, from an immune system perspective, should we be exposed to cold and/or flu viruses, as has properly dosed vitamins E and C in select groups studied. To ensure you get the type of nutritional support to best prepare your immune system so your immune system can be operating in a manner that both reduces your risk of infection and enhances your recovery if you are exposed, be sure to complete the Health Coach® Assessment and answer "Yes" to the question that asks:

Do you want to take pro-active nutritional steps to **improve your immune system's ability to resist infection** by viruses that cause colds and the flu?

Answering "Yes" will ensure that your individualized nutritional program will identify and recommend nutritional factors, including Andrographis and Ginseng, with an ability to enhance and support the immune system's ability to go on the offense should we be exposed to the types of viruses that cause colds and flu.

If you're already on a Health Coach® nutrient program that has been customized for you and you have a re-order coming up, you can simply go back to www.healthcoach.com, login using your personal username and password and update your assessment to ensure you cover this important area properly. For those who do not have a Health Coach® and want to get onto the safest, most evidence-based nutrient support available today, Simply use the link from either our Health Coach® eRadio web page www.healthcoach.ca/radio/ or from www.healthcoach.com to "Access a Certified Health Coach", chose who you wish to have coach you, enter their Health Code online, and you will be guided through a remarkably efficient process for assessing your truest nutrient and lifestyle needs.

Every bit as important to your natural immunity is your lifestyle. Your day-to-day eating, exercise and sleep habits, your stress exposure, lighting conditions and more, all factor into how well your immune system responds to the challenges it encounters, including exposure to viruses and pathogenic bacteria. In case you are not aware, completion of the Health Coach® Health & Lifestyle Assessment leads to a thorough analysis of the each of the key areas related to your health and provides guidelines for improvement. Following these guidelines is very important to minimizing your risk to developing a significant cold or flu and in large part dictates how well you handle it.

Whether you are following our diet and lifestyle guidelines, on a properly tailored nutrient supplement program, used homeopathics, and had a flu shot, or not, we highly recommend that you be prepared to respond immediately to the onset of a cold or flu. 25+ years of clinical experience with thousands has taught us the benefits of catching any infection early and responding appropriately. Keep the most proven nutrient support for the treatment of acute colds and flu on hand throughout the season. The NutriScan product "Immune Support Plus" has bundled all 3 in convenient single dose packets.

Note: At the first sign of any infection, or when you find yourself over-tired and/or over-stressed, chilled etc. take a packet, and repeat again each 3-4 hours. If symptoms are present, continue to repeat the single packet dose 3-4 times daily until they have been clear for 2 full days (to ensure the infection is resolved and avoid any rebound flare up). For prevention purposes you can use one of the ingredients – Andrographis, daily or take 1 Immune Support Plus packet per day, morning preferred.

Another key aspect of natural immunity has to do with the health of our “barrier” functions. Beneficial bacteria are on our skin and line the surface of the parts of our internal cavities that interface with the outside world (like our respiratory and digestive systems). These beneficial (probiotic) bacteria are an important part of our first line of defense against viral exposure because they help us to win the battle before the virus gets past them and makes its way inside our cells and starts to replicate. Because of this, daily consumption of the probiotic organisms found in NutriScan’s “Probiotic” product can be a critical part of creating and sustaining a good offense (included within the majority of NutriScan custom nutrient programs due to the lack of these beneficial organisms in today’s diet).

Another key component of a good offense is making sure that our overall nutritional status is in tip-top shape. Insufficiencies in most vitamins (especially vitamin A, C, and E) and minerals (including iron, selenium, and zinc) handicap our immune system. Ensuring that our diet and nutritional program identifies and supports these and other nutritional needs can go a long way towards building the type of powerful immune system we need to safely see us through the upcoming flu season. Here again, NutriScan’s evidence-based rules engine ensures your levels of each of these essential nutritional elements are included in your properly personalized nutrient program. It is important to note that “too much of a good thing, is no good at all”. “More” is not better when it comes to nutrient support. Appropriate dosing is essential for safety and efficacy.

If you are not on a custom program where our rules engine protects against both insufficiencies and excesses, be sure to have your Health Coach review any nutrients you are taking.

Whether or not you will be getting the flu shot, there is always more you can be doing to **better prepare your immune system for the upcoming cold and flu season**. Whether it is optimizing the body’s response to the vaccine or working independently to give your immune system a nutritional helping hand, **let NutriScan® be a part of your flu and cold season solutions**.

References:

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“Vitamin E (200 IU) or placebo capsule administered daily; all participants received a capsule containing half the recommended daily allowance of essential vitamins and minerals. fewer participants receiving vitamin E acquired 1 or more respiratory tract infections... When common colds were analyzed in a post hoc subgroup analysis, the vitamin E group had a lower incidence of common cold...”

Tantcheva LP, Stoeva ES, Galabov AS, Braykova AA, Savov VM, Mileva MM. Effect of vitamin E and vitamin C combination on experimental influenza virus infection. *Methods Find Exp Clin Pharmacol*. 2003 May;25(4):259-64.

“The preventive effect of vitamin E was stronger than the effect of vitamin C, but the combination (vitamin E + C) had the strongest effect. The superior protective effect of the combination is probably due to vitamin C's repairing effect on vitamin E's tocopheroxyl radical.”

Hemila H. Vitamin C intake and susceptibility to the common cold. *Br J Nutr*. 1997 Jan;77(1):59-72. Department of Public Health, University of Helsinki, Finland.

“...in four studies with British male schoolchildren and students a statistically highly significant reduction in common cold incidence was found in groups supplemented with vitamin C (pooled RR 0.70; 95% CI 0.60, 0.81). Thus, these studies with British males indicate that vitamin C intake has physiological effects on susceptibility to common cold infections... It was assumed that the potential effect of supplementation might be most conspicuous in subjects with low dietary vitamin C intake.”

Van Straten M, Josling P. Preventing the common cold with a vitamin C supplement: a double-blind, placebo-controlled survey. *Adv Ther*. 2002 May-Jun;19(3):151-9. Herbal Health Centre, Battle, East Sussex, United Kingdom.

“Compared with the placebo group, the active-treatment group had significantly fewer colds (37 vs. 50, P<.05), fewer days challenged virally (85 vs. 178), and a significantly shorter duration of severe symptoms (1.8 vs. 3.1 days, P<.03). Consequently, volunteers in the active group were less likely to get a cold and recovered faster if infected.”

Gorton HC, Jarvis K. The effectiveness of vitamin C in preventing and relieving the symptoms of virus-induced respiratory infections. *J Manipulative Physiol Ther*. 1999 Oct;22(8):530-3.

“RESULTS: Overall, reported flu and cold symptoms in the test group decreased 85% compared with the control group after the administration of megadose Vitamin C. CONCLUSION: Vitamin C in megadoses administered before or after the appearance of cold and flu symptoms relieved and prevented the symptoms in the test population compared with the control group.”

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“CONCLUSIONS: Low-dose supplementation of zinc and selenium provides significant improvement in elderly patients by increasing the humoral response after vaccination and could have considerable public health importance by reducing morbidity from respiratory tract infections.”

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[The use of the Multi-Tabs vitamin and mineral complex to prevent influenza]

[Article in Ukrainian]

Kononenko VV, Rudenko AO, Vasylenko LH, Myronenko AH.

“Used in 160 adults and 55 children "Multi-Tabs" has been shown to be an effective means of the influenza and ARD prophylaxis in an epidemic setting both in adults and children.”

Yasui H, Shida K, Matsuzaki T, Yokokura T. Immunomodulatory function of lactic acid bacteria. *Antonie Van Leeuwenhoek*. 1999 Jul-Nov;76(1-4):383-9.

“These results demonstrated that these two strains of lactic acid bacteria **modulated the different immune systems each in its own way and prevented against various diseases.**”

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“CONCLUSION: CVT-E002 (ginseng) was shown to be safe, well tolerated, and **potentially effective for preventing ARI (acute respiratory infection) due to influenza and RSV.**”

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