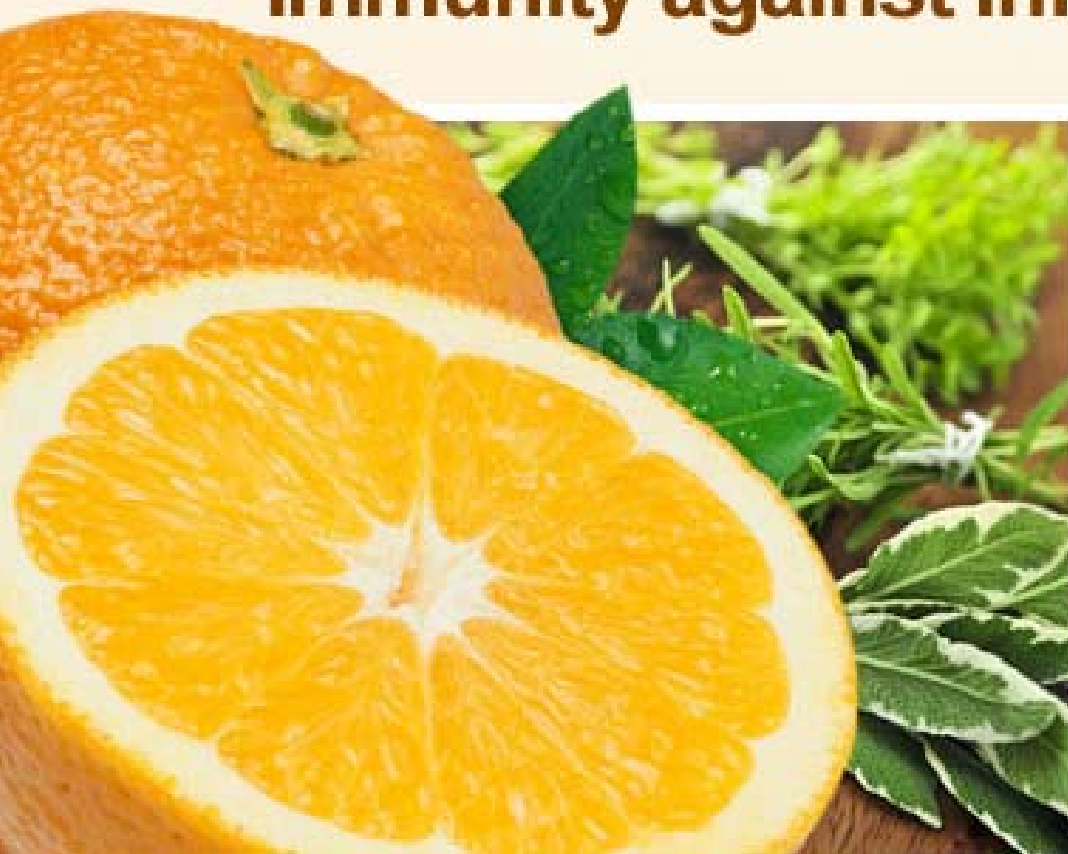


Harlan Mittag, D.C.

Boosting Immunity

For Swine Flu And More

**Contains natural remedies which
research shows can boost your
immunity against infections**



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Disclaimer

Boosting Your Immunity For Swine Flu and More is not intended as medical advice. Please consult a medical or health professional should the need for one be indicated. None of the natural remedies mentioned herein are approved or recommended for the treatment of H1N1 infection (swine flu) by the Food and Drug Administration. The information herein has not been evaluated by the FDA.

Introduction	5
GETTING THE SWINE FLU INTO PERSPECTIVE	6
A Note About The Different Types of Influenza	7
Symptoms of Influenza Type A	8
The Purpose Of This Report Is.....	9
An Overall Strategy.....	10
1) Nutrients essential to your immune system’s health (start taking these now).....	11
Choosing A Multiple Vitamin-Mineral	12
Summary of Nutrient Recommendations.....	14
Special Note On Vitamin D.....	15
2) Natural Anti-Viral Remedies (have these on hand in case you are infected)	15
Vitamin C	16
Resveratrol.....	17
Nano-Silver	18
Why silver?	19
Colloidal silver	19
What is nano-silver?	20
What is nano-silver good for?	20
Is Nano-Silver Safe?.....	22
Summary of Antiviral Remedies.....	25
3) Natural remedies can reduce the impact of a viral infection (have on hand to take if you become infected)	25
Swine Flu Virus H1N1 Infections.....	25
How Our Body Reacts To Flu Viruses	26
The Cytokine Storm	27
Antioxidants	29
Homeopathy	29
Selenium	30
N-Acetyl-Cysteine/Glutathione	31
Quercetin	32
Vitamin E.....	32
Curcumin.....	33
Summary of natural products that can reduce the impact of a viral infection.....	33
Putting It All Together – things to do now step-by-step	34
Diet and Lifestyle Is Critical For Immune System Health.....	35
Manage your stress.....	35
Get enough sleep.....	35
Eat a healthy diet.....	36
Avoid toxins and detoxify	36
Liquid Zeolite	37
Ways To Reduce The Likelihood Of Becoming Infected With Swine Flu.....	38

About the author: 39
References and Resources 39

Introduction

Dear Friends,

In this report I present an argument for using natural remedies to maintain immune system health so as to help protect yourself against swine flu and other infectious diseases. While the focus here is primarily on swine flu, the information contained herein is applicable to many of the immune challenges that we face today. I have attempted to give you the reasons and research behind the recommendations in the hope that you'll be more motivated to do something, to be proactive.

Please don't interpret my support of "natural" remedies as negating the value of medical care. There is no reason that you can't benefit from both.

Recommending "natural remedies" is a touchy subject. The Food and Drug Administration (the U.S. Government agency that regulates drugs and health products) recently announced that it will aggressively prosecute anyone attempting to sell "fraudulent" swine flu cures. Here is their statement.

"Consumers who purchase products to treat the novel 2009 H1N1 virus that are not approved, cleared or authorized by the FDA for the treatment or prevention of influenza risk their health and the health of their families," said Michael Chappell, acting FDA Associate Commissioner for Regulatory Affairs. "In conjunction with the Federal Trade Commission, the FDA has developed an aggressive strategy to identify, investigate, and take regulatory or criminal action against individuals or businesses that wrongfully promote 2009 H1N1 influenza products in an attempt to take advantage of the current flu public health emergency."¹

While I agree with the concern over fraudulent exploitation, I think it is helpful to share well founded information. I like what the founder of eBay, Pierre Omidyar, has to say about sharing information that can be helpful.

"If people have good information, they will generally make good decisions about what to do for themselves and their families. Helping families, neighborhoods, and communities think about how life will be impacted during a pandemic should equip them to better react during an actual pandemic."²

The remedies discussed here are intended to boost and balance the immune system. Anyone with a healthy immune system will have a better outcome than someone with compromised immunity.

As a point of clarification, I don't recommend, provide or sell any specific products for the purpose of prevention, cure or amelioration of swine flu. I have purposely not mentioned specific brands of products in this report so that it cannot be construed to recommend a specific product(s).

In this report I have attempted to give you information about nutrients shown to have value. I trust that you will be able to find whatever products you decide to use on your own in the marketplace.

To make the process of finding good products easier for you I have added "Google or Ask For _____" phrases throughout this report. Whether you are googling on the internet or buying at a health store/food coop, etc. you can use these key words to find what you want. Again, I don't give you the name of any product(s), rather the names of ingredients that you should look for in products that you find.

Getting The Swine Flu Into Perspective



Getting The Swine Flu Into Perspective (cont)

Most people I speak to agree that the media has worked itself into a tizzy regarding swine flu. While no single death should be ignored, the number of deaths due to swine flu world wide to date (May 24, 2009) is less than 100.

“Swine flu has sickened more than 11,000 people in 41 countries and killed 85, according to the World Health Organization, whose figures often trail those of individual countries. Mexico has reported 75 deaths, the U.S. 10, and one in both Canada and Costa Rica.”⁷²

Joe Mercola hosts Mercola.com, a great health website. In it he comments that “Honestly, your risk of being killed by a lightning strike in the last five years was about 2,300 percent higher than your risk of contracting and dying from the bird flu.”⁷³ I'm not kidding! In just one year (2004), more than 1,170 people died from lightning strikes, worldwide.”⁷³

Mercola also references a study of the Spanish flu pandemic (also H1N1) in which researchers conclude that deaths in that pandemic were caused not by the flu virus itself but by a superinfection. A superinfection is an infection on top of another infection. If the flu virus weakens the body sufficiently, then other infections can take hold. In the case of the Spanish flu, the researchers believe that the predominant cause of death was streptococcal pneumonia.

Current medical treatment of superinfections such as Streptococcus pneumonia is certainly more effective now than it was in 1918-19 during the Spanish flu epidemic. Bacterial resistance to antibiotics is an issue of great concern, but we are not as vulnerable to them now as we were in 1918.

A Note About The Different Types of Influenza

The “Flu” is short for influenza. Influenza is a viral infection caused by a specific type of virus. The virus that causes the common cold (rhinovirus) is another type of virus.

“Flu viruses are classified into three broad kinds: A, B and C. B and C have both been human flu's for centuries. Type C is the mildest, causing cold-like symptoms. Type B is the one that's to blame for the classic winter flue. Type A is the big danger. It remains essentially a bird virus,

but every now and then it acquires the ability to cross into humans, either via pigs or directly. When it does this, people may have so little resistance that a pandemic is a real possibility.”³

It is the A class of viruses that was responsible for three global outbreaks of flu in the last century. The first was the “Spanish Flu” of 1918, a global outbreak (pandemic) that infected about 30 percent of the world’s population and killed an estimated 20 to 40 million people. Other viruses in class A were responsible for smaller outbreaks in 1957 and 1968. In 1957, the Asian flu caused 70,000 deaths in the United States. In 1968, the Hong Kong flu caused roughly 34,000 deaths in the United States.

Note that much of the research presented below is not specific to influenza type A or the current H1N1 swine flu virus. Still there is credible evidence that these natural products and anti-viral substances can be helpful in lessening the impact of and speeding a recovery from viral infections including influenza.

Symptoms of Influenza Type A

Influenza Type A is different from seasonal human flu. The viruses that cause the ever changing strains of seasonal flu live in humans. Influenza Type A on the other hand, is caused by viruses that are carried in primarily birds, but sometimes pigs as well. This is where we get the names, the avian flu (H5N1) and swine flue (H1N1) which are different strains of Type A influenza. Symptoms of the (human) seasonal flu often include fever, tiredness, lack of appetite and coughing.

The symptoms of influenza Type A, can include any or all of the following: fever, muscle aches, lethargy, a dry cough, headache, sore throat, a runny nose, nausea, vomiting, diarrhea, and lack of appetite.

Complications of influenza Type A include pneumonia, bronchitis, ear infections and sinus infections. A viral pneumonia can deteriorate to bacterial pneumonia and death.

The Purpose Of This Report Is...

- To discuss natural remedies to consider taking now to improve your overall health and immune system health..
- To discuss natural remedies you may want to have on hand in case you do become infected with swine flu (or any another viral/bacterial infection).
- To present the ways you can reduce the chances of becoming infected with the swine flu virus.

Neither this report and nor the natural remedies metioned herein are intended to replace medical care in the event that you contract the swine flu. Medical services may be essential for your recovery from swine flu or any other infection. I personally believe in utilizing traditional and alternative medicine in addressing the swine flu and all other areas of illness and disease.

During a severe epidemic, supplies of anti-viral drugs may not be available or accessible to you when you need them. To be most effective the anti-viral drugs Tamiflu and Relenza should be taken within 48 hours of the onset of flu symptoms. If they are not available to you at that time, it would be good to have a back up plan.

The goal of using the natural remedies recommended here is to increase your chances of making a quick and easy recovery should you become infected.

An Overall Strategy

Let's look at an overall strategy with regard to natural remedies and swine flu. While it may be obvious, it is helpful to state it for clarity. The strategy here is to:

- Boost your body's defenses against the swine flu virus in case you do become infected.
- Reduce your likelihood of contracting swine flu.

No one can argue with the importance of having a healthy immune system. This is true when addressing possible swine flu infection as well. Boosting your immune system can involve a number of different approaches. I will address remedies that are taken by mouth (ingested) here. At the end of this report you can find information on other important components of maintaining a healthy immune system. All of these approaches are complimentary, that is they work together. Natural remedies taken by mouth can be broken down into three types.



1. Nutrients essential to your immune system's health
2. Natural anti-viral remedies
3. Natural remedies that have been shown to reduce the impact of a viral infection

What distinguishes these three approaches and what is their relevance? I'll give a quick response to this question as a preview to the following pages which flush out the answer.

It is well established that we (Americans) are calorie rich and nutrient poor. That is, we eat too many calories that are depleted of essential vitamins and minerals. Most Americans are not getting the basic nutrients they need to stay healthy. This includes nutrients necessary for the

immune system to function adequately. So making sure to get enough of the nutrients essential to your immune system's anti-viral fighting capacity is important.

Many substances found in nature have antiviral qualities. When they are safe for us to consume and we do so, that antiviral protection is transferred to us as well.

A good place to start when addressing the threat of the swine flu is to look at what happens during the infection. The H1N1 virus infects the entire body but the focus of infection is the respiratory tract. In its attempt to protect itself against the invading virus, the body mounts an immune response.

The current H1N1 swine flu virus causes the immune system to react in an overblown manner, with what has been called the "cytokine storm". The immune systems over zealous reaction to the virus can be as much of a problem or more of a problem than the viral infection itself.

An analogy would be someone who is allergic to peanuts. They mistakenly have a peanut and their body goes into life threatening anaphylactic shock. The peanut itself is harmless except for the immune system's reaction to it, which can be fatal. An allergic reaction to peanuts is not a completely accurate analogy to the body's over zealous reaction to the swine flu virus. But it does accurately convey the idea that the immune system's reaction to the swine flu virus is part of what makes the swine flu dangerous. The immune system's reaction to the swine flu virus is what often leads to the complications of the infection. More often it is these complications that can prove fatal, rather than the viral infection itself.

1) Nutrients essential to your immune system's health (start taking these now)

Your immune system thrives on good nutrition. On the other hand, if you are poorly nourished your immune system will lose some of it's viral fighting abilities. "Scientists will probably some day discover that nearly all nutrients have some direct or indirect role in immune function. Some of the more thoroughly understood nutrients are being used in medicine to prevent infection and to boost immunity during infection. Those usually discussed include vitamin A, E,

C, B-complex, beta-carotene, zinc, iron, selenium and coenzyme Q₁₀.”⁴ More recent research strongly substantiates that vitamin D is an important part of this list as well (see below).

Unless you are being directed by a health professional or you really know what you are doing, its not advisable to regularly take individual nutrients. That is to say, except perhaps for vitamin D, don't take separate vitamin A, C, B-complex, etc. A multiple is preferable, because the quantity of each nutrient in relation to the others is important. If you are taking a lot of one nutrient and none of another, you can create nutritional imbalances in your body that are detrimental to your health. High quality multiple vitamin-minerals contain nutrients in the correct proportions that your body needs.

Choosing A Multiple Vitamin-Mineral

It is best to take a high quality multiple vitamin-mineral available to health professionals. The manufacturers of these brands of nutritional supplements know that their products must meet high standards. The doctors buying them demand it. Retail brands directly available to the public often do not meet these high standards. Retail brand manufacturers know that their clientele may not have the knowledge necessary to tell a quality product from a poor product.

If you think this is just a speculative argument, consider the following. A recent study found that "Of 21 brands of multivitamins tested by independent laboratories, just 10 met the stated claims on their labels".⁵

We may take for granted that our vitamin-mineral products are pure (they don't contain toxins or poisons. Nutritional supplement manufacturers order raw materials from wholesale suppliers. Quality control is up to the manufacturers. If they don't test their raw materials for purity, they don't know what is in them. A recent study revealed for instance, that Vitamin Shoppe's women's product contained 15.3 micrograms of lead per daily serving or 10X what is generally considered safe.⁵



The very best high quality, pure vitamin-mineral supplements are available through health professionals. I don't mean medical doctors who give you a prescription for vitamin D or fish oil. Most medical doctors don't have the training to distinguish between a good and poor quality nutritional supplement.

On many occasions I've had clients come in with cheap drug store brands of vitamins full of fillers, artificial colors and preservatives that weren't helping them at all. I ask who recommended them and they say their M.D. They usually say that they aren't experiencing any benefit (which is why they're coming in to see me). Only after getting on a high quality product do they begin to experience the benefit.

Alternative health providers such as nutritionists, chiropractors, naturopaths, and a small number of truly holistic medical doctors will give you the best quality supplements. If you don't want to go to a health practitioner, many natural food coops also have good quality vitamin and mineral supplements. Finally; you can search on the internet. But please don't go for the cheapest products. As in everything else in the market place, you usually get what you pay for.

To maintain a healthy immune response take your multiple daily. Your multiple should contain all of the specific vitamins and minerals mentioned above. Research shows that these specific nutrients are an important part of supporting immune system function. function, a supplement for adults should contain the following:

Vitamin A	2000 IU
Vitamin E	400 IU
Vitamin C	500 mg
Vitamin D	600 IU
Beta-carotene	100 mg
Vitamin B6	20 mg
Vitamin B5	30 mg
Zinc	10 mg
Copper	200 mcg

Selenium	50 mcg
CoQ10	10 mg
Bioflavonoids	150 mg

Another basic nutrient essential for the immune system health is omega-3 fat. Omega-3 fats are best taken as flax seed oil (for vegetarians), or better yet as fish oil. The body uses the omega-3 fat in fish oil directly. The omega-3 fats in flax oil must be converted to what the body can use directly.

One concern about taking fish oil is the toxicity of the fish that it comes from. Our oceans are now full of toxins. These toxins often concentrate in the oil of the fish. Cod liver oil is particularly bad since the liver is the organ of detoxification.

Many commercial fish oil products address this issue by cleaning the oil. Make sure you only take cleaned oil. Usually the manufacturer will make it clear that their oil has been cleaned since this is a selling point. It also costs money to clean the oil, making the product more expensive. A guarantee that the oil does not contain toxins such as heavy metals (mercury) means that the oil has been cleaned. "Pharmaceutical grade" fish oil means that it has been cleaned and concentrated. "Molecular distillation" is the name of a cleaning process that removes virtually all contaminants, so you can also look for it on the bottle.

Summary of Nutrient Recommendations

1. Daily take a high quality **multiple vitamin-mineral** manufactured by a company that supplies health professionals at the bottle's recommended doses. Make sure you're your multiple vitamin mineral has a minimum of vitamin C, vitamin E and selenium (see recommendations above).
2. Daily take a cleaned **fish oil supplement** containing approximately 1200 mg EPA and 800 mg DHA.

Google or Ask For "natural multiple vitamin-mineral, and not a one-a-day" and "cleaned fish oil".

Special Note On Vitamin D

While all of the vitamins are important, two of note with regard to immunity and viral/bacterial infections are Vitamin C and Vitamin D. Vitamin C is discussed below, and Vitamin D here.

In an article entitled “Epidemic Influenza And Vitamin D”⁶⁹ John Cannell, MD discusses the relationship between Vitamin D, our body’s antiviral and antibacterial immunity (specifically the seasonal flu virus) and the season’s of the year.

Dr. Cannell refers to several research studies “showing that a naturally occurring steroid hormone - a hormone most of us take for granted - was, in effect, a potent antibiotic. Instead of directly killing bacteria and viruses, the steroid hormone under question increases the body’s production of a remarkable class of proteins, called antimicrobial peptides. The 200 known antimicrobial peptides directly and rapidly destroy the cell walls of bacteria, fungi, and viruses, including the influenza virus, and play a key role in keeping the lungs free of infection. The steroid hormone that showed these remarkable antibiotic properties was plain old vitamin D.”⁷⁰

Dr. Cannell, in another article suggests that “Up to 70 Percent of Americans May Be Deficient In Vitamin D”.⁷¹ A safe daily dose of Vitamin D3 would be 600 IU to 1000 IU.

[Google or Ask For “vitamin D3”.](#)

2) Natural Anti-Viral Remedies (have these on hand in case you are infected)

Antivirals are substances that kill viruses. There are currently two antiviral drugs recommended for use against the swine flu virus. These are Tamiflu and Relenza. By helping kill the swine flu virus as it attempts to multiply within your body, these drugs help your immune system in its fight to defeat the virus.

There are also many natural products that have anti-viral properties. Plants for instance, need to defend themselves too. They manufacture substances to defend themselves against viruses. When humans consume these substances they can also help to kill any viruses lurking in our body. However, it is important to have some evidence that a natural substance that you are

relying on to kill viruses has been shown to do so. In the case of the swine flu virus, you would want to know that it effectively kills the swine flu virus.

Vitamin C

One of the most common is vitamin C. “The anti-viral properties of ascorbic acid have been known almost since the vitamin’s discovery. Even before the discovery of the polio vaccine, Dr. Claus Jungeblut, working at the College of Physicians and Surgeons of Columbia University, used high doses of vitamin C to inactivate the poliomyelitis virus and arrest its paralyzing effect. He went on to use vitamin C successfully against the herpes, vaccinia, and hepatitis viruses.”⁶

“Vitamin C helps fight viral and bacterial infections in part because of its influence over immune function and bactericidal activity of infection-fighting cells in the body. Leukocytes, one type of white blood cells, are an extremely important part of the immune system. They contain a very high concentration of ascorbic acid that decreases with infection and returns to normal after recovery.”⁶



Research shows that vitamin C is helpful in reducing the symptoms of virally induced upper respiratory tract infections. A study was done of 700 students who suffered an upper respiratory tract infections (cold or flu) over a specific time period. They were separated into two groups. One group was given only large doses of vitamin C (1000 mg per hour for the first six hours and 1000 mg three times daily thereafter). The other group received decongestants and pain relievers. The vitamin C group (versus the other group) showed an 85 % reduction in symptoms. The researchers concluded that vitamin C "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.”⁷ Its important to note that this research was not on people suffering from influenza A, or specifically the H1N1 swine flu. So it’s not appropriate to extrapolate the results of this study to H1N1.

Nobel prize laureate Linus Pauling recommended and personally took 10,000 mg of vitamin C per day after extensive study of this vitamin. The current RDA for vitamin C is 75 mg and 90 mg daily for adult men and women, respectively. The Linus Pauling Institute recommends that adults take 400 mg daily.

[Google or Ask For “buffered vitamin C or ester C”](#).

Resveratrol

Researchers have found that resveratrol, a natural substance found in the skin of red grapes inhibits the ability of type A influenza viruses to reproduce both within cell cultures and in living organisms (influenza infected mice).^{8,9}

“We have shown that RV, a natural polyphenol whose concentration in red wine is 1.5–3.0 mg/L [6], can inhibit the in vitro and in vivo replication of influenza A virus without producing any significant toxicity.”⁸

This doesn’t translate to benefit for humans during the current H1N1 flu epidemic with confidence. But there are so many other demonstrated health benefits of resveratrol, that it is one natural product that I have added to my “take this to stay healthy list”.

Resveratrol has been shown to increase the life span of a number of test animals. Since resveratrol is found in the skins of red grapes, it is also present in wine. It is believed to be responsible for the low incidence of cardiovascular disease among the French, despite their high fat diets. Resveratrol is also reported to help prevent cancer, to increase athletic performance and to reduce plaque formation in neurodegenerative diseases such as Alzheimer’s.

60 Minutes recently featured the health benefits of resveratrol in a television segment entitled “Drink To Your Health”. It can be viewed on UTube by going to <http://www.youtube.com/watch?v=R3TGKQeTrc>.

Google or Ask For “resveratrol”.

Nano-Silver

I believe nano-silver is the most promising natural remedy yet discovered in the face of swine flu and all of the other possible pandemic diseases facing humanity now (2009). Given the resistance that many microbes have developed against antibiotics available to the medical profession, nano-silver may be a life saver to many people.

Dr. John Apsley, MD concurs when he says that nano-silver “may be the best tool yet to come out of nanotechnology in the battle against the super-germ epidemic.” He continues, saying that nano-silver “appears readily able to super charge and restore our immune systems, while at the same time dissecting bacterial, viral and even fungal germs. Perhaps most importantly, it may be the agent of choice to defend us against super-germs, as well as from the looming threat of the next influenza pandemic.”¹⁰



Why silver?

Silver has been used throughout history as an anti-microbial. As far back as ancient Persia, Babylonia and Greece it was used to disinfect water. Historically it was also used in ancient Rome and India, and it is still used in the Ayurvedic medicine of India today. NASA and many airlines currently use silver to purify water onboard spaceships and airplanes.

Dr. Robert Becker, MD is an orthopedic surgeon who has done extensive research on the electrical properties of the body in relation to healing. This work is detailed in his two books, entitled “The Body Electric” and “Cross Currents”.

Dr. Becker learned that applying small electrical potentials across the gap between the fractured ends of a bone would speed the healing of the fracture. In doing this work he experimented with electrodes of different composition, including silver. In Cross Currents Dr. Becker describes some of his research with silver electrodes. “We tested the effects of a variety of metallic electrodes on several different types of bacteria in culture.” “What we had actually done was rediscover the fact that silver killed bacteria, which had been known for centuries.”¹¹

Dr. Becker began treating patients with bone infections and fractures by placing silver electrodes on either end of the broken bone. The silver ions from the electrodes diffused into the surrounding tissues. This electrically charged elemental silver had a double positive effect. It killed infecting bacteria without harming the body’s tissues, but more than that it stimulated healing of the tissues themselves. “In each case, the non-unions [of the fractured bones] healed faster.... In addition, the soft tissues and skin healed at the same extraordinary rate. The electrically generated silver ion was doing something more than killing bacteria—it was also causing major growth stimulation of tissues in the wound.”¹¹

Colloidal silver

Colloidal silver is elemental metallic silver suspended in small particles in water. It was used by as an antibiotic by medical doctors until the late 1930’s when the discovery of penicillin

eclipsed its use. Colloidal silver remains available today, and has GRE status (generally recognized as safe) by the FDA. With the development of new nano-technologies, the quality of colloidal silver now available far exceeds what doctors used in the 1930's. *This new colloidal silver is thus called nano-silver.* I recommend only nano-silver.

What is nano-silver?

It is elemental (pure) silver that has been reduced to extremely small particle sizes and dispersed in water. To qualify as nano sized, the particles must be in the range from less than a nanometer to 10 nanometers in size. A red blood cell is approximately 8000 nanometers in diameter. At these dimensions, a nano-silver particle contains only a small number of silver atoms.

What is nano-silver good for?

Research shows that nano-silver is a broad spectrum ***antibiotic, antifungal and antiviral.*** What's so powerful about it is that it selectively kills infectious organisms without harming the cells of the human body in any way.

In 2006 Eric Gordon, MD and Kent Holtorf, MD wrote an article for the Townsend Letter For Physicians and Patients entitled "*Promising Cure for URTI Pandemics, Including H5N1 and SARS: Has the Final Solution to the Coming Plagues Been Discovered? (Part II)*". At the time the avian flu and SARS (Severe Acute Respiratory Syndrome) were of great concern, particularly in southeast Asia where most cases of the avian flu were contracted from infected birds, and where deaths were being reported. Consequently, the article's title references the H5N1 avian flu virus and SARS. The article presents "oligodynamic silver" as a solution to the threat of another influenza pandemic. At the time they used the term "oligodynamic silver", which is now more often referred to as nano-silver.

The influenza swine flu virus H1N1 primarily attacks the respiratory system (nose, throat, trachea, bronchi and alveoli). Many other viruses also focus primarily on the respiratory

tract. In fact, viral infections account for most upper respiratory tract infections (URTIs). Modern medicine is in need of a remedy that can combat these viruses. "A broad-spectrum anti-viral agent that really works is needed to combat over 200 viruses that cause URTIs.¹² Undoubtedly oligodynamic [nano] silver fits this bill."¹³

There is significant research showing the antiviral properties of silver. With the development of technologically advanced nano-silver, the protective benefit of silver is being demonstrated against even formidable viruses. "Emerging medical studies confirm the stellar, broad-spectrum virotoxic efficacy of oligodynamic silver (Ag+) both in vitro and in vivo. This includes some of the most formidable viral organisms like HIV (including co-infections)¹⁴⁻²¹ and Herpesvirus hominis (HSV)."²²⁻²⁸

The article continues "...the collective authoritative medical literature has documented efficacy of Ag+'s virotoxicity against over 24 viruses. For the viruses relevant to URTIs, the following are known to succumb to oligodynamic Ag+.

Adenovirus^{29, 24}

Coxsackie virus type B-3 (CB-3);³⁰

Influenzae (strains not identified);^{31, 32, 33}

Influenza A;^{24, 30}

Influenza B (Haemophilus influenzae);³⁴

Rhinovirus type 1A;³⁰ and

Herpesvirus hominus (HSV)^{22-28"}

Nano-silver also readily kills bacteria. While the current influenza Type A of concern is caused by a virus (H1N1) most fatalities are not directly due to the virus infection, but to "complications" of the infection. One complication that can be lethal is developing bacterial pneumonia. When the lungs are weakened by viral infection, a bacterial infection of the lungs (bacterial pneumonia) can develop. Because nano-silver is also effective against many bacteria it may also help protect against one of the lethal complications of viral flu

infection—bacterial pneumonia. “Oligodynamic [nano] Ag⁺’s antimicrobial efficacy extends well beyond its virotoxicity. Oligodynamic [nano] Ag⁺’s lethal effects span across all microbial domains (viral, bacterial, and fungal). The following URTI-related bacteria are known to be susceptible to oligodynamic Ag⁺:

Beta hemolytic streptococci^{35, 36, 22, 37, 38, 39-42,}

Streptococcus pneumoniae;³⁴

Corynebacterium diphtheriae;^{37, 11, 33, 26}

Neisseria gonorrhoeae;^{25, 29, 38, 33, 39, 40, 41}

Herpesvirus hominis (HSV);²⁵⁻³²

Nano-silver is also a potent antifungal. Researchers find that nano-silver effectively kills Candida yeast and strains of a fungus that is a frequent cause of athlete’s foot. (Trychophyton mentagrophytes).⁴³

Is Nano-Silver Safe?

Nano-silver is safe, having a GRAS (Generally Recognized As Safe) certification via the FDA. Apsley summarizes silver’s safety as follows: “It has repeatedly been shown that when dosages of silver ions (that is, charged silver particles or atoms such as UPOSH \square) are delivered to the location of the infection, these same ions are harmless to human cells.”^{44, 45} Apsley goes on to quote the 80th edition of CRC’s Handbook of Chemistry and Physics, “...Silver has germicidal effects and kills many lower organisms effectively without harm to higher animals.”^{44, 46} Russell, et al. reviewed the available medical literature on colloidal silver in 1994 confirming the safety of pure elemental silver to the human body.⁴⁷

Apsley goes on to discuss the safety of nano-silver with regard to the balance of the body’s own intestinal flora. “Silver ions work without causing a secondary yeast infection because pure silver particles of the tiniest sizes in nothing but water (such as UPOSH) will be absorbed in the stomach well before it can travel into the intestinal track. Therefore, the

good bacteria that inhabit your intestinal track way down past the stomach, such as acidophilus, remain perfectly safe.”⁴⁴

Small amounts of silver are found in the food we eat. Mushrooms and milk are higher in silver than most foods. Wheat flour contains 0.3 micrograms per gram while mushrooms contain several hundred micrograms per gram. Milk contains 27-54 micrograms per liter.

What about the blue man widely publicized for turning blue after consuming colloidal silver? His name is Paul Karason. Paul’s skin is the color of a ripe grape due to a condition called argyria. A detailed interview⁴⁸ with Paul have determined that Paul started drinking home made colloidal silver in 1994 or 1995, drinking 20 ounces of approximately 10 ppm solution daily. This continued for at least four years, at which point he continued drinking home made silver sporadically.

The EPA (Environmental Protection Agency) has established safety ranges for oral intake of nano-silver. The EPA determined what it terms the “Lowest Observed Adverse Event Level (LOAEL).⁴⁹ This is the lowest level of silver intake which can theoretically lead to an adverse event. So if you take less than that amount, you are assured that you will not have any “adverse” event. This guideline assumes a 10 ppm concentration of elemental silver solution. You can see from the list below that taking large amounts of silver for years at a time is considered below the threshold for adverse effects. Taking nano-silver briefly (for two weeks) during a viral infection comes nowhere near the threshold and poses no danger.

- “Taking 38 tsp daily of 10 ppm silver for 35 years falls below LOAEL threshold for an adult.
- Taking 76 tsp daily of 10 ppm silver for 17 years falls below LOAEL threshold for an adult.
- Taking 170 tsp daily of 10 ppm silver for 8 years falls below LOAEL threshold for an adult.
- Taking 304 tsp daily of 10 ppm silver for 4 years falls below LOAEL threshold for an adult.
- Taking 608 tsp daily of 10 ppm silver for 2 years falls below LOAEL threshold for an adult.

- Taking 200 Tbls daily of 10 ppm silver for 2 years falls below LOAEL threshold for an adult.
- Taking $\frac{3}{4}$ gallon daily of 10 ppm silver for 2 years falls below LOAEL threshold for an adult.⁴⁹

Google or Ask For “nano silver or uniform picoscalar oligodynamic silver hydrosol”

Summary of Antiviral Remedies

Vitamin C and Resveratrol will benefit your health generally when taken on a regular basis. I suggest starting to take 500 mg of vitamin C and 200 mg of Resveratrol daily. Nano-silver can be taken with the onset of symptoms at dosages recommended by the manufacturer. When taking nano-silver it is often recommended to take a loading dose (to load your system with nano-silver) followed by a therapeutic dose (to eliminate the virus, bacteria or fungi). These doses depend on the specific product and should be available from the manufacturer.

3) Natural remedies can reduce the impact of a viral infection (have on hand to take if you become infected)

Natural immune balancing remedies may also be important. Understanding why they may help reduce our vulnerability to the swine flu virus requires some basic understanding of viral flu infections and how the body defends itself.

Swine Flu Virus H1N1 Infections

In the United States at least, the current swine flu virus (H1N1 in early May 2009) does not appear to be very lethal. There have been a number of infections with just one death. Death from this infection with the swine flu is due to complications of the infection.

This is not the case with other more lethal viruses. They are different in that they directly damage body tissues causing death. For instance the lethal ebola virus damages the lining of blood vessels, resulting in internal bleeding.

Another virus that we have all heard of is the HIV virus which causes AIDS (Acquired Immune Deficiency Syndrome). The HIV virus cripples key cells of the immune system, weakening the

immune systems ability to protect us. Death from AIDS is often due to complications from the effects of reduced immunity.

Why some people die from swine flu virus infection and others don't is not clear.

With the current (H1N1) swine flu virus of 2009, it seems there may be a relationship between severity of the flu and the person's age, with younger people being more vulnerable. On the surface this might be confusing, because young people typically have strong immune systems.

How Our Body Reacts To Flu Viruses

If the H1N1 swine flu is in fact more severe in younger people it may be explained by what is termed the "cytokine storm". Forget that term for the moment and consider what happens when the body is faced with a viral infection. Once it detects the virus—once we become infected, the immune system reacts. We are all familiar with aspects of this reaction.

We may get a fever. In its wisdom the body increases its temperature because this increases the activity of the white cells of the immune system. We may also get a sore throat. A battle is going on within the mucus membranes of the throat. White cells are attempting to immobilize viruses by attacking them with antibodies and eating and digesting them. This battle results in local tissue swelling and inflammation which causes the sore throat.

Since the swine flu is a respiratory virus, it primarily infects the respiratory tract—from the nose and throat and into the lungs. In its battle against the viruses the immune systems response may cause swelling and pooling of fluid in the lungs. Subsequent to pooling of fluid in the lungs, pneumonia can result—a serious complication of the viral infection.

The point here is that the pneumonia was not caused by the viruses. The pneumonia is the result of the immune systems fight against the virus. Yet the pneumonia makes your body more vulnerable to a bacterial infection of the lungs which can be deadly. It's in this way that the immune systems response to the infection creates a condition (bacterial pneumonia) that can kill us.

The Cytokine Storm

Let's look at how this happens. Remember the "cytokine storm" which I mentioned several paragraphs above. Cytokines are signal molecules produced largely to alert the immune system. Many of these signals are produced by the tissue cells lining the respiratory passages and also those lining the gut (called epithelium).

The virus that causes the common cold is also a respiratory virus. When you have a bad cold, the cold viruses infecting the mucus lining of your nose and throat cause the tissue to secrete cytokines (signals to the immune system). When the immune system responds you will probably experience itching (due to the immune systems release of histamine) and lots of mucus (also produced through the immune system's reaction). But colds don't cause pneumonia. While the immune system does respond to the cold virus, it's response is more controlled. It doesn't result in a cytokine storm which in turn causes the lungs to fill with fluid.

The difference is the immune systems response to the virus. The force of this response can cause damage to the body. If the infected tissues release a barrage (or storm) of signals which creates a massive immune response, then you're more likely to end up with pneumonia rather than the milder congestion usually associated with a cold.

"From a clinical perspective, a cytokine storm describes an immune system that has over-reacted and is damaging the body, causing failure of multiple organ systems. Ordinarily a cytokine storm is a rare event, which means there are few opportunities to study them, so we do not fully understand how they happen."⁵¹

"The pathogenicity (its ability to damage human tissues) of the influenza virus H5N1 lies in its "hyper-induction of pro-inflammatory cytokines".⁵⁰

Researchers at the University of Washington infected mice with the H1N1 virus that caused the Spanish flu in 1918-19. They then studied the reaction of the lung cells to the virus and concluded "The H1N1 influenza strain that caused the 1918 flu pandemic causes a severe immune-system response that likely is what makes the virus so deadly to a host animal or person".¹⁰¹

The chief author of the study, professor of microbiology at the University of Washington, Dr. John Kash summarized the research findings this way, "What we think is happening is that the host's inflammatory response is being highly activated by the virus, and that response is making the virus much more damaging to the host. The host's immune system may be overreacting and killing off too many cells, and that may be a key contributor to what makes this virus more pathogenic."¹⁰¹

This statement is assuredly applicable to the current H1N1 swine flu virus and to future influenza A subtype viruses as well.

Having heard that younger people with "strong" immune systems might be more vulnerable to swine flu viral infections, there has been some confusion about whether it is smart to "strengthen" your immune system with nutrition and herbs. The logic is that if your immune system is strong, won't it mount a more powerful cytokine storm and make you more vulnerable.

The answer is that boosting immune function does not mean stimulating a more powerful immune reaction. Boosting is probably the wrong word to use. A more appropriate term would be creating a more balanced immune system response.

The immune system has internal controls that regulate its response. Think of an army fighting an opposing force. In order to win the army needs fire power. But the fire power has to be controlled and strategic. The same is true for the immune system. An army out of control will cause a lot of "collateral damage", meaning many people on one's own side (soldiers and civilians) will be killed by friendly fire.

In the body there are systems in place that dampen the force of the immune reaction. These systems are designed to minimize collateral damage from friendly fire. They control the extent of the cytokine storm and its impact on tissues.

The cytokines released in the "cytokine storm" are pro-inflammatory. They create an acute but abnormal inflammatory response that damages the body tissues. With this information traditional and alternative health practitioners are developing strategies that will help control the immune systems excess release of pro-inflammatory cytokines.

These control systems rely on nutrients in our diets. If we are deficient in key nutrients we are more likely to have an out of control immune reaction which is more likely to create the deadly complications associated with swine flu. By nutrients I refer not only to vitamins and minerals

but also to phytonutrients—chemicals found in plants that can have profound health benefits. Some of these have been mentioned already in this report: vitamin C, selenium, vitamin E, N-acetyl-cysteine and glutathione.

Antioxidants

Research has documented the innumerable health benefits provided by antioxidants, and this fact is no longer debatable. “Peterhans noted that antioxidants that down regulate pro-inflammatory cytokines “may be a useful complement to specific antiviral drugs in the therapy of viral diseases.”

⁴⁷ Key antioxidants include vitamin A, vitamin E, vitamin C, N-acetyl-Cysteine, glutathione and alpha lipoic acid.



Homeopathy

In the early part of the 20th century, homeopathy was practiced more widely by the medical profession in the United States. Many U.S. homeopaths treated patients infected with the Spanish Flu during the 1918-19 flu pandemic with good results. In fact records indicate that homeopathic treatment was favorable to the traditional medical treatments of the day by a factor of almost 30.

The following quote from historian Julian Winston. It cites the superior results of homeopaths treating patients with the Spanish Flu.

“Perhaps the most recent use of homeopathy in a major epidemic was during the Influenza Pandemic of 1918. The Journal of the American Institute for Homeopathy, May, 1921, had a

long article about the use of homeopathy in the flu epidemic. Dr. T A McCann, from Dayton, Ohio, reported that 24,000 cases of flu treated allopathically had a mortality rate of 28.2% while 26,000 cases of flu treated homeopathically had a mortality rate of 1.05%. This last figure was supported by Dean W.A. Pearson of Philadelphia (Hahnemann College) who collected 26,795 cases of flu treated with homeopathy with the above result.”⁵²

There are various possible homeopathic remedies for the current swine flu. Because homeopathy determines a remedy based on the individuals symptoms, and because two people with the same swine flu virus can have different symptoms, it is not always straight forward as to which remedy will work best. Several remedies were commonly used by homeopaths during the Spanish Flu pandemic. Julian Winston’s history identifies some of these. “The most common remedy used was Gelsemium, with occasional cases needing Bryonia and Eupatorium reported.”⁵²

Selenium

I indicated above that “your immune system thrives on good nutrition” and that “on the other hand, if you are poorly nourished your immune system will lose some of its viral fighting abilities”. However, the impact of good nutrition in the case of viral infections may extend beyond boosting immunity. Friel and Lederman, in their article *A Nutritional Supplement Formula for Influenza A (H5N1) Infection in Humans* state that “the virus itself also may be directly affected by the nutritional status of the host”^{30, 13} They cite research at the University of North Carolina which has demonstrated that a benign RNA virus (coxsackievirus B3) became more virulent in either selenium-deficient or vitamin E-deficient mice. The researchers concluded “To the best of our knowledge, this is the first report of a specific nutritional deficiency driving changes in a viral genome, permitting an avirulent virus to acquire virulence due to genetic mutation.”⁵¹

Later research was extended to influenza Type A and in summarizing this research Friel and Lederman conclude “mice deficient in selenium were more susceptible to infection with coxsackievirus and influenza viruses; selenium-deficient mice developed myocarditis when infected with a normally benign strain of coxsackievirus and also developed severe pneumonia when infected with a mild strain of influenza virus; the immune system was altered in the

selenium-deficient mice, as was the viral pathogen itself; and researchers found mutations in the viral genome of both the coxsackievirus and influenza viruses, which were associated with increased pathogenesis.”⁴³

[Google or Ask For “selenium ascorbate or selenium aspartate”](#).

N-Acetyl-Cysteine/Glutathione

N-Acetyl-Cysteine and glutathione are part of the body’s elaborate system to protect itself against oxidation. On a cellular level the process of oxidation can damage cells. Inflammation, no matter what the source, causes damage to tissues via oxidative processes. This damage is combated by antioxidants such as N-acetyl-cysteine and glutathione. An instructive analogy is to think of inflammation as a fire. Imagine a fire inside in a fireplace that is burning out of control and throwing numerous sparks out into the room. The sparks can burn the carpet or anything else they touch. Antioxidants would be comparable to placing a screen in front of the fire so that the sparks are contained.

Supplementation with N-acetyl-cysteine restores the body’s supply of its key intrinsic antioxidant, glutathione. Optimal levels of glutathione within the body reduces the amount of cellular damage occurring due to oxidative processes or what is referred to as oxidative stress. Influenza Type A infection induces oxidative stress (damage). But research is also documenting that the ability of the infecting virus to replicate itself within cells is also “regulated by the redox state of the host cell”.^{47, 53-57} This suggests that being well fortified with antioxidants would produce a cellular environment in which viral replication is less favorable.

When researchers infected mice with an influenza virus, the group of mice that had also been supplemented with N-acetyl-cysteine had fewer deaths. “Administration of the antioxidant N-acetylcysteine (NAC, 1 g/kg per day, orally) significantly decreased the mortality in infected mice”.⁵⁷

[Google or Ask For “N-acetylcysteine”](#)

Quercetin

Quercetin is a phytochemical (chemical from a plant) that is found in apples and red onions and which in part gives them their coloring. It is a strong antioxidant and has been shown to be a natural antioxidant and antihistamine.

“In 2003, researchers showed that quercetin also protected the lungs from free radicals produced by alveolar macrophages during an influenza infection”.⁵⁸ “Thus, quercetin may be useful as a drug in reducing oxidative stress induced by influenza virus infection in the lung, and quercetin may protect the lung from the toxic effects of free radicals.”⁵⁸

“In 2005, researchers reported that, in experimental influenza virus infections in mice, quercetin helped maintain levels of endogenous antioxidant enzymes – including catalase, reduced glutathione, and superoxide dismutase 00 in the lung and, thus...”⁵⁸

“may be useful as a drug in protecting the lung from the deleterious effects of oxygen-derived free radicals released during influenza virus infection.”⁵⁸

[Google or Ask For “quercetin”](#).

Vitamin E

Vitamin E has multiple roles in the human body, among which is its antioxidant properties. Friel and Lederman¹¹ cite research demonstrating that vitamin E supplementation significantly reduced secretion of pro-inflammatory cytokines (the cytokine storm) in human white cells (monocytes).⁵⁹ Another research study compared the extent of influenza Type A virus infection in two groups of mice that were either supplemented vitamin E in their diets, or not. The vitamin E supplemented group had significantly lower levels of virus in the lungs compared to those whose diets had not been supplemented with vitamin E.⁶⁰

[Google or Ask For “vitamin E as d-alpha tocopherol and mixed tocopherols”](#).

Curcumin

Curcumin is an extract of tumeric, a spice that is used widely in India and Indonesia. Curcumin has been shown to induce “biosynthesis of glutathione in cultured alveolar epithelial cells”.⁶¹ Since influenza Type A is known to focus infection on the epithelial cells of the lung (alveoli) and since it has been demonstrated that endogenous glutathione levels moderate the ability of viruses to replicate themselves, curcumin may be helpful in reducing the infectivity of influenza Type A viruses and may also moderate the destructive impact of the subsequent cytokine storm.



[Google or Ask For “curcumin or Curcuma longa extract standardized to 95% curcumin”.](#)

Summary of natural products that can reduce the impact of a viral infection.

All of the nutrients mentioned in this section have general health benefit. Antioxidants should be taken daily as part of a general health regimen. Vitamin E and selenium are a part of all high quality multiple vitamin mineral supplements. A recommended daily dose is given in the table in the first section of this report. Quercetin, N-acetyl-cysteine and curcumin are phytochemicals (chemicals from plants) which like Resveratrol have numerous health benefits. Many multiple vitamin mineral or antioxidant supplements will have some quercetin and N-acetyl-cysteine in them. Quercetin is a component of many natural allergy supplements. Curcumin has a broad range of health benefits. Research suggests that curcumin, an extract of the spice tumeric, actively fights inflammation, helps prevent prostate and breast cancer, and helps prevent Alzheimer’s.

Putting It All Together – things to do now step-by-step

Here's a review of what you can do to boost your immunity for swine flu and more...

1. Start taking a high-quality multiple vitamin-mineral daily.
2. Also take a "clean" high-quality fish oil supplement daily.
3. Have on hand one of the anti-viral products mentioned in this report. I recommend nano silver as the best. If you do come down with the swine flu or any other illness, then take these per the manufacturer's recommendation.
4. Have on hand several of the antioxidant products mentioned in this report. These may help quell the "cytokine storm" if you become infected. You would take them in large doses at that time. Large doses can be 10-20X the recommended daily dose, for a short period of time (1-2 weeks).
5. Follow the recommendations below for living healthier. If you have never done a detoxification regimen, then I recommend getting some liquid zeolite and taking it for several months.

Diet and Lifestyle Is Critical For Immune System Health

Relying on nutritional supplements and natural anti-viral remedies while ignoring other critical aspects of health is like buying high octane gasoline for your car but never changing the oil. It's not wise. Here are some key aspects of maintaining immune system health and overall health.

Manage your stress

These are stressful times, which means that more than ever you need to manage your stress. A huge step in this direction is to avoid being bombarded by negative news in the media. The best technique that I know of to relieve stress is The Release Technique. You can learn more about it at www.releasetechnique.com.

Get enough sleep

You need to get enough sleep—eight hours per night or enough so that you feel rested when you get up in the morning. Our immune system's function drops significantly with a single night's loss of sleep. Chronic sleep deprivation is even more of a problem. The most common cause of insomnia is stress.



Eat a healthy diet

I often ask patients if they eat a healthy diet. Many times they respond “Yes!” which allows me to then ask “And what do you eat?” to see what they feel is a healthy diet. People have varied ideas of what is a healthy diet. Here are the basics:

- Eat a minimum of 5-6 servings of fruits and vegetables each day.
- As much as possible eliminate “white” foods, meaning starches such as pasta, white bread, pastries, cookies, potato’s; and sweets.
- Avoid soda pop and highly sweetened, highly caffeinated drinks.
- Eat healthy lean, protein emphasizing poultry and small amounts of red meat.
- Include nuts, seeds and beans in your diet (almonds, sunflower seeds, garbanzo beans, black beans, etc.)
- Use healthy oils (olive oil for cooking, flax seed oil for salads).

Avoid toxins and detoxify

Toxins impair our body’s function overall and the immune system specifically. While we are all inevitably exposed to toxins in our daily lives, you can avoid obvious sources.

- Quit smoking.
- Eat organic food.
- Avoid processed foods.

- Avoid using toxic household and lawn/garden products.

These are just a few common sources of toxins in our lives. The unfortunate reality (circa 2009) is that we all live in a sea of pollution.

Some people refer to it as the “toxic soup”. The implication here is that if it’s a soup, then you’re drinking it (whether you want to or not). Only the degree of toxicity of the air you breath, food you eat and water you drink may vary depending on where you live,

Liquid Zeolite

The easiest and best way I know of for most people to detoxify is with a substance called zeolite. Zeolite is a mineral called an adsorbent.⁷⁴ While no cat litter that I know of contains zeolite, it would be another example of an adsorbent. When molten lava touches sea water it crystallizes to form zeolite. Given the presence of numerous volcano’s surrounded by ocean in the Pacific South Sea Islands, zeolite has been used in their for hundred’s of years.

As an “adsorbent”, zeolite absorbs toxins. It has been used widely in commerce with many industrial applications. It was even used to clean up the toxic radioactive contamination at the Chernobyl nuclear reactor accident site.

Over the past decade technology has made it possible to micro-size zeolite crystals. They can then be suspended in liquid and consumed orally. (Several liquid zeolite products are available). The micro-sized zeolite crystals roam the body’s fluids and tissues absorbing toxins, and are then passed out through the kidney’s.

Health practitioners are finding zeolite extremely useful for detoxification because:

- Zeolite removes heavy metal and organic toxins
- Zeolite alkalizes the body (removes H⁺)
- Zeolite is strongly anti-viral

- Zeolite is easy to take (drops in water) so that compliance among patients is higher than with more complicated and time consuming detoxification regimens

Ways To Reduce The Likelihood Of Becoming Infected With Swine Flu

Avoiding exposure to the swine flu virus is an obvious way to avoid being infected. The virus is spread through droplets from the nose and throat of infected persons. The virus can be transmitted directly through a sneeze or a cough from an infected person; or by touching your infected hand to your nose and mouth. You can contaminate your hand with the virus only if you are caring for someone with the flu, or if you touch an infected surface such as a telephone or doorknob.

Infected persons can transmit the virus the day before they begin to experience symptoms and for about three days after symptoms disappear. Children may be contagious a full seven days following symptoms.

Here are a number of ways that you can reduce your chance of being exposed.

- Cover your mouth when you cough or sneeze using a tissue. If you've used a tissue to sneeze, throw it away immediately.
- Cough into your hand or sleeve if you don't have a tissue.
- Wash your hands thoroughly with soap if you cover your mouth with a hand to cough.
- Wash your hands before eating and periodically throughout the day with soap and water.
- If you become ill and suspect the flu, stay home so as not to expose others. If you know that you're sick with the flu and do go out in public, wear a mask to protect others.
- Keep your home reasonably clean, cleaning dishes and clothing with hot water and soap. Bleach diluted 1/3 cup to a gallon of water is a good disinfectant for surfaces such as kitchen and bathroom counters, table tops, etc.

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