



# Healthy for Life Newsletter

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### **Bird Flu [Avian Influenza Flu – H5N1]**

Bird flu or avian influenza flu is caused by several different types and subtypes of A influenza viruses. The most virulent form of this infection is caused by the H5N1 strain. This virulent strain of bird flu occurs primarily in birds and has been found to primarily spread among domesticated birds that are confined in close quarters. Once these birds are infected with this virulent strain, 90 to 100% die within 48 hours. Infected birds shed this virus in their saliva, nasal secretions, and feces. It may also be found on contaminated surfaces from the secretions of these infected birds. Rarely this virus can infect humans and has been primarily seen in people who are in close contact with infected birds.

There are several other types of bird flu that do not cause this severe of an illness in birds. However, the CDC and our government are very concerned about the possibility that this virus may mutate and begin to spread easily from human to human. To date the virus has been shown to spread only on rare occasions from one human to the other and then not spread any further. Since viruses of this type have been known to mutate frequently, the concern for the spread of this disease from human to human could set off the world's first major pandemic in nearly a century. This bi-monthly newsletter will give you some insight on how you can best avoid getting this infection if a pandemic ever materializes.

#### **Human Health Risks to Bird Flu**

When humans have been infected with the most virulent form of bird flu (H5N1 strain), it has caused severe illness and death. In Asia and Europe, over half the people who have contracted this disease have died. As I mentioned earlier,

most of these individuals got the disease because they were in close contact with infected birds. This virus has previously never infected humans, so we have not developed any immunity to this virus. Symptoms of avian influenza in humans have ranged from typical human influenza-like symptoms (e.g., fever, cough, sore throat, and muscle aches) to eye infections, pneumonia, severe respiratory diseases (such as acute respiratory distress), and other severe and life-threatening complications. They have not responded to the typical anti-viral drugs like amantadine and rimantadine. They are currently doing trials with other anti-viral drugs like Tamiflu and Relenza. The early trials seem to show that the virus is sensitive to these drugs, and our government is now in the middle of trying to stockpile them. The best hope to avoid a pandemic still seems to be with the development of vaccines.

There currently is no commercially available vaccine to protect humans against H5N1 virus that is being seen in Asia and Europe. However, vaccine development efforts are taking place. Research studies to test a vaccine to protect humans against H5N1 virus began in April 2005, and a series of clinical trials is under way. However, the major concern is the fact that these types of viruses have the capability to mutate very fast and effectively. A vaccine that is developed for the 2005 virus may not be effective against the potential virus that may cause a pandemic. Our country is also behind the eight ball when it comes to having effective, efficient development of vaccines. This has been the results of our litigious society and lack of financial incentives for the vaccine producers. Even though the government is trying to correct this problem, most experts are not too optimistic that this can change fast enough to avoid a pandemic, if it were to occur in the next few years.

A research team in Hong Kong may have discovered a key reason why bird flu is so much more deadly than human flu viruses. They report that the bird flu virus H5N1 promotes much more inflammation in human lung cells than the human flu virus H1N1. In a human cell line, the bird flu virus triggered more than 10 times the level of inflammatory proteins as the human flu virus.

The H5N1 bird flu virus was first reported in humans in 1997, and as of November there had been 122 confirmed cases among humans and just more than 60 deaths. Most of the deaths have occurred among people who contracted the virus through direct contact with infected poultry and other birds. A few cases of human-to-human transmission are suspected to have occurred in Hong Kong, China, and Vietnam, but these have not been confirmed.

### **Avoiding the Possible Bird Flu Pandemic**

The bird flu to date has not been shown to spread very easily. Having only 150 or so documented cases is a small number. The concern is the fact that most of those infected have been healthy children or adults, and over half have died. At this point, however, I would not be in a panic mode and would not even be concerned about travel to Southeast Asia or any country where this infection has been identified. However, if a known pandemic does occur, it is an infection you would want to do almost anything to avoid.

Wearing a respirator type mask is going to be essential. Also having special anti-viral cleansers and hand sanitizers will be necessary. Wearing protective eyewear is also going to be necessary along with vinyl disposable gloves. I would also recommend that you pick up two items from your local health food store: Olive Leaf Extract and Grapefruit Nasal Spray. I suggest taking 500 mg of Olive Leaf Extract (Solaray) twice daily the day before a trip, the day of the trip, and two days following. I also recommend using a 1% Grapefruit Nasal Spray (Nutrabioc) during a pandemic; spraying one or two sprays into each nostril every hour during the flight.

Both Olive Leaf Extract and Grapefruit Nasal Spray are capable of killing both viruses and bacteria in the nasopharyngeal area, reducing the viral load that the body needs to handle. My patients who travel via airlines frequently have used this regimen very successfully in avoiding other more common upper respiratory infections and sinusitis. One of the worst environments for viruses and bacteria is an airplane. Not only are passengers very close to a lot of different people who may be sick, but the airlines re-circulate air to save on fuel.

### **The Ultimate Defense Against the Bird Flu**

These short-term defenses are helpful, but the ultimate defense against the bird flu is cellular nutrition. In my book, *What Your Doctor Doesn't Know About Nutritional Medicine*, I point out how you can significantly build up your natural immune system with the use of nutritional supplements. Vitamin E, Vitamin C, Selenium, Zinc, Carotenoids, Glutathione, Coenzyme Q10, and several other nutrients are known to improve the immune system. Dr. Karlheinz Schmidt stated, "The optimal function of the host defense system depends upon an adequate supply of antioxidants micronutrients." When all of the players of our immune system are functioning at their peak capacity, our overall health is obviously the beneficiary and offers our best protection against the potential bird flu pandemic.

Therefore, any individual who has been taking the Usana Essentials during the past year is already maximizing his or her immune system. I have learned over the past ten years of reviewing the medical literature that cellular nutrition does not only enhance our natural antioxidant system but also the natural immune system, and repair system. Therefore, you want to be taking all these nutrients at optimal levels.

One of the greatest enhancers of our immune system is Coenzyme Q10. I would recommend for everyone who is truly concerned about the potential bird flu pandemic to consider adding two Coquinone 30 to his or her supplement program.

Proflavanol, Active Calcium, and the essential fats (either Optomega or Biomega 3) can also help enhance the immune system. Therefore, the absolute best way to protect yourself from getting or surviving the bird flu is to enhance your natural immune system via cellular nutrition (Usana Essentials, Optomega or Biomega-3, and Active Calcium) and adding Coquinone and Proflavanol as optimizers.

No one knows how severe or how widespread the bird flu pandemic will be or if there will ever be an outbreak; however, it is known that the immune system is our great protector and having it "firing on all cylinders" will only improve our chances to live well in this polluted and sometimes dangerous world. It is my hope this information helps you and the entire USANA Family.

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