Below is a list of foods that are said to contain substances that are **natural antivirals**, **immune boosters** or they decrease cytokines TNF-a and IL-6.

The natural foods and herbs below have been proven to be **highly effective antiviral**, which may assist the body in **fighting the <u>Bird Flu</u> and the <u>Swine Flu</u>.** They also are not known to contribute to the <u>cytokine storm</u>, which may be the cause of many fatalities. Some of the herbs are also know to suppress the <u>cytokine storm</u> (cytokines TNF-a and IL-6), which are known to cause inflammation and complications in influenza infections.

Please also **be mindful of the herbs and foods listed at the bottom of this page** that are known to increase the production of cytokines TNF-a and IL-6 and mucous, which could further complicate symptoms of the <u>Swine Flu</u> and <u>Bird Flu</u>, especially in people with strong immune systems. These foods should be avoided at all costs.

Tamiflu and **Relenza** are not only expensive, but is also in short supply, and in times of a pandemic we will need to rely on what mother nature has to offer.

We have included links to the products that we think appear to be of best quality and value, which can be purchased from our affiliate at wholesale prices and shipped worldwide.

Alternative medications that is most likely to help us during a severe pandemic

Garlic (allicin) - Very effective antiviral. Best if fresh (raw) and crushed. Must be consumed within 1 hour of crushing. Dosage is initially 2 to 3 cloves per day but later reduce until no body odor occurs. No toxic effects noted. (Pubmed PMID 9049657).

Vitamin C - Boosts the immune system and is an antiviral by blocking the enzyme neuraminadase. Viruses need neuraminadase to reproduce. There are anecdotal stories of people taking large amounts of Vitamin C (children ½) surviving the Spanish Flu. Research shows that it may reduce the production of cytokines TNF-a and IL-6. A study on 470 people involved giving the test group 1000 mg hourly for 6 hours and then 1000 mg 3 times daily after reporting flu symptoms. Symptoms decreased by 85%. (Pubmed PMID 10543583, 634178, 16169205, 12876306)

Green Tea (possible Tamiflu/Relenza alternative) - Very effective **antiviral**. Also decreases the production of the cytokine (catechins) TNF-a. Inhibits neuraminidase. May have **antiviral** activity that is equal to other antivirals such as **Tamiflu** (Pubmed PMID 16137775)

St Johns Wort (Hypericum) - Very effective antiviral. Also decreases the production of the cytokine IL-6. Hypericum is an extract from St John's Wort. There have been some very successful field trials in commercial flocks infected with H5N1 in Vietnam. (<u>Pubmed PMID</u> 7857513, 11518071, 11362353, 7857513)

Vitamin E - Immune booster. Also decreases the production of the cytokine TNF-a. (<u>Pubmed PMID 10929076</u>) Experiments involved using mice. Very suitable for immune compromised people, especially the elderly. Effects enhanced when taken with Vitamin C.

Apple Juice - Antiviral. Fresh apple juice including the pulp and skin has greater antiviral activity than heated commercial apple juice. More research is needed. Effectiveness on H5N1 is unknown (Pubmed PMID 32832, 12452634)

Recommended product: Freshly squeezed apple juice or apples or normal 100% apple juice from the supermarket (organic unfiltered preferred)

Resveratrol - Antiviral. In addition to inhibiting neuraminidase, Resveratrol also sends a message to cells to stop manufacturing viruses. This is a proven antiviral found naturally in red wine, peanuts, mulberries, Japanese Knotwood root (richest source), raisins and red grapes. Resveratrol supplements are relatively inexpensive, are more stable than wine and is available in liquid form for absorption in the mouth. No toxic effects noted. (Pubmed PMID 1583880, 12817628, 15985724)

Scuttellaria (Skullcap)- Antiviral. An herb used as a tea. It has no side effects and is also a mild tranquillizer. Research suggests neuraminidase, which is a substance needed by the H5N1 Bird Flu virus to reproduce, may be inhibited.

Cranberry Juice - Early research shows that it may be an antiviral, making viruses less able to invade or multiply. Effectiveness on H5N1 is unknown (<u>Pubmed PMID 15781126</u>)

Cats Claw (Uncaria tomentosa)- Decreases the production of the cytokine TNF-a. Also boosts immune system. The number of white blood cells was significantly increased during treatment. No toxicity was noted. (www.uspharmacist.com id 844)

(<u>Pubmed 10962207</u>) Active constituents can be found in the leaves, bark, vine, and roots. Water extraction from bark used.

Children and pregnant women are to avoid. Has a potentially damaging effect on the DNA of proliferating cells (cancers, foetuses, growing children)

Curcumin (Tumeric Spice) - Decreases the production of the cytokine TNF-a. This is the yellow compound in turmeric spice. Research shows that this may be very good for preventing a cytokine storm although this is not proven (www.pdrhealth.com). Must be taken with food or gastritis or peptic ulcers may occur. Pregnant women and feeding mothers should avoid this. The medicinal properties of curcurnin cannot be utilized when used alone due to rapid metabolism in the liver and intestinal wall. When combined with Piperine found in black pepper the absorption is increased with no adverse effects.(www.pdrhealth.com/drug_info/pip_0322)
Obtainable from health stores in tablets, liquid, capsules already combined with piperine. Dosage is 500mg to 4000mg daily.

Recommended product: Tumeric from the supermarket

Astragalus root (Astragali Radix) - Boosts immune system (Pubmed PMID 15588652)

Tea tree Steam Inhalation - Reduces the cytokine TNF-a. Add 2 drops of tea tree oil in a bowl of steaming water. Cover head with a towel and inhale for 5 to 10 minutes. Relieves congestion and fights infection. Its effectiveness is unknown. (Pubmed PMID 11131302)

DANGER - AVOID TAKING

The following substances SHOULD BE AVOIDED during a H5N1 pandemic DANGER - AVOID TAKING

Elderberry juice (Sambucal) - Increases production of cytokines TNF-a and IL-6. This substance is very effective against the common flu but may not be desirable for the H5N1 Bird Flu virus. Increases in these cytokines may trigger a lethal cytokine storm. (Isr Med Journal2002 Nov;4:944-6)

DANGER - AVOID TAKING

Micro Algae (Chlorella and Spirulina) - Increases production of cytokine TNF-a (Pubmed PMID 11731916)

DANGER - AVOID TAKING

Honey - Increases production of cytokines TNF-a and IL-6 (Pubmed PMID 12824009)

DANGER - AVOID TAKING

Chocolate - Increases production of cytokines TNF-a and IL-6 (<u>Pubmed PMID 12885154</u>, PMID 10917928)

DANGER - AVOID TAKING

Echinacea - Increases production of cytokines TNF-a and IL-6. Although it is often used for normal flu, research shows that it may increase the chance of cytokine storms for H5N1 (Pubmed PMID 15556647, 9568541)

DANGER - AVOID TAKING

Kimchi - Increases production of cytokines TNF-a and IL-6 (Pubmed PMID 15630182)

DANGER - AVOID TAKING

Dairy products & Bananas - These foods increase mucous production