



The Flu

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Influenza, or “flu”, is a highly contagious viral respiratory infection. It is caused by orthomyxovirus types A, B, and C, which are spread by direct person-to-person contact or by airborne droplet spray. Flu generally occurs in the late fall and early winter and can reach epidemic proportions when a modified form of the virus emerges for which the population has no immunity. All age groups are susceptible, but the prevalence is highest in school-age children. Its clinical manifestations often resemble a severe form of the common cold. Symptoms include sore throat, cough, fever, muscular pains, and weakness. The incubation period is brief (from 1 to 3 days), and the onset is usually sudden, with chills, fever, and general discomfort. Fever and nonlocal symptoms distinguish influenza from the common cold. Complete recovery in from 3 to 10 days is the rule. However, bacterial pneumonia may occur among high-risk patients, as the elderly, the very young, and people who have chronic diseases of the lungs. Conventional medical treatment usually involves bed rest, aspirin, and drinking of fluids. Yearly vaccination with the currently prevalent strain of influenza virus is recommended for elderly or debilitated persons.

Black Elderberry

The flu virus invades cells by puncturing their walls with tiny spikes called hemagglutinin that cover its surface. In vitro (i.e., in a test-tube) research found that natural components of Black

Elderberry (*Sambucus nigra*) actually disarm the spikes. It binds to them, thus preventing them from piercing the cell membrane. The viral spikes are covered with an enzyme called neuraminidase. This enzyme acts to break down the cell wall. To test how Black Elderberry would work in actual people with the flu, a team of Israeli scientists and physicians conducted placebo-controlled, double blind study on patients infected with the flu virus during an epidemic in Southern Israel. The results were that within twenty four hours the symptoms—fever, cough, and muscle pain had significantly improved in twenty percent of the patients. After the second day, another seventy five percent were clearly much improved, and in three days a complete cure was achieved in over ninety percent of the patients studied. Among the control group only eight percent of patients showed an improvement after 24 hours, and for the remaining 92%, improvement was observed within 6 days or more. Tests were also conducted on patients to determine the presence of influenza antibodies. It was found that the level of antibodies was higher in patients receiving the Black Elderberry extract versus those receiving the placebo, indicating an enhanced defense response in those patients.¹

Vitamin C

In a recent study, 252 adult subjects with a cold or flu who were treated with hourly doses of 1000 mg of vitamin C for the first 6 hours, and then 3 times daily thereafter. A control group of 463 subjects were treated with pain relievers and decongestants. The results were that flu and cold symptoms reported in the vitamin C group decreased 85%, compared with the control group, after the administration of megadose Vitamin C. The researchers in this study concluded: “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.²

Echinacea

Echinacea is well known for its immune enhancing properties. Germany’s *Commission E Monographs* (an internationally authoritative source of credible information on the use of herbs for various disorders) indicates that among Echinacea’s uses, this herb can be to treat chronic infections of the respiratory tract, acting in part by increasing the number of white blood cells.³ Also, animal research has shown that Echinacea stimulates those cells responsible for nonspecific immunity, the first line of defense against virus-infected cells.⁴ This suggests that Echinacea may have value in the treatment of the flu.

Indeed, in a randomized, double-blind, placebo-controlled study, a combination of Echinacea purpurea and Echinacea angustifolia (two species of Echinacea) or a placebo were given 5 to 6 times daily as a tea to subjects with cold or flu symptoms.⁵ Treatment with the Echinacea tea at early onset of cold or flu symptoms was effective for relieving these symptoms in a shorter period of time than a placebo.

For those who would prefer to use Echinacea capsules instead of drinking a tea, you must obtain capsules that also provide a blend of Echinacea purpurea and Echinacea angustifolia. Furthermore, the capsules must provide about 32 mg of total phenolic compounds (calculated as captaric acid, cichoric acid, chlorogenic acid, and echinacoside)⁵ in a single dose. For example, if the Echinacea product provided 400 mg of total Echinacea standardized for 4% of phenolics, then each capsule would contain 16 mg phenolics. In this case, two capsules would then provide the necessary 32 mg of total phenolics; and should be taken 5 of 6 times daily.

Homeopathic remedy for flu

A controlled clinical trial was conducted to test effectiveness of a homeopathic preparation in treating influenza; 237 patients received the homeopathic, while 241 were given a placebo. Patients recorded their temperature twice a day, and the presence or absence of five main symptoms (headache, stiffness, lumbar and articular pain, shivers) along with cough, coryza

and fatigue. The result was that the proportion of cases who recovered within 48 hours of treatment was greater among the group given the homeopathic remedy than among the placebo group (17.1% verses 10.3%).⁶

Vitamin A

Vitamin A’s role in maintaining healthy epithelial tissue helps to fight infection by preventing the invasion of bacteria or viruses.⁷ For this reason, additional vitamin A may help during an influenza infection.

Nutrient/Natural Substance	Dosage	Rationale
Black Elderberry	2000 mg daily (lozenge form)	May help reduce symptoms and duration
Vitamin C	1000-2000 mg every 2 hours (reduce dose if experiencing loose bowels)	Promotes immune response
Echinacea	4000-4800 mg daily (4% phenolics)	May help reduce symptoms sooner; helps promote immune response
Homeopathic remedy for flu	Per directions on bottle	Improves recovery time
Vitamin A	100,000 IU daily for 5 days only	Promote immunity and mucous membrane health

Diet and/or other considerations

As with colds, recommendations for the flu involve getting lots of rest, and drinking plenty of fluids.

References

- ¹ Zakay-Rones Z, et al, *J Altern Complement Med* 1995; 1(4):361-9.
- ² Gorton HC, Jarvis K, *J Manipulative Physiol Ther* 1999; 22(8):530-3.
- ³ Blumenthal, M., et al, *The Complete German Commission E Monographs: Therapeutic Guide to Herbal Medicines / CD version* (1998) American Botanical Council, Austin, Texas.
- ⁴ Sun LZ, Currier NL, Miller SC, *J Altern Complement Med* 1999; 5(5):437-46.
- ⁵ Lindenmuth GF & Lindenmuth EB. *J Altern Complement Med* 2000; 6(4):327-34
- ⁶ Ferley JP, et al, *Br J Clin Pharmacol* 1989; 27(3):329-35.
- ⁷ Whitney E, Cataldo C, Rolfes S, *Understanding Normal and Clinical Nutrition, Fifth Edition* (1998) West/Wadsworth, Belmont, California, p. 379.



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