

Health Bits and Pieces (HFN 29:3)

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Big Brother Loves You!

It's that time of the year when the government shows its concern for our well-being by trying to terrify us into getting flu shots. In the Fall, the CDC goes into overdrive working in vaccine manufacturers' interests by conducting campaigns to increase the rate of flu vaccination. The CDC has repeatedly used what has now become a well-known statistic of 36,000 Americans dying from the flu annually; but this statistic is inaccurate because the great majority of these cases were never tested for the presence of the flu virus. The statistics include death from "associated" pneumonia. It also ignores other factors that contribute to the incidence of pneumonia such as stomach acid-suppressing drugs, immunosuppressive drugs, and surgical anesthesia. According to the CDC's National Center for Health Statistics (NCHS), "influenza and pneumonia" took 62,034 lives in 2001 – 61,777 of which were attributed to pneumonia and 257 to flu, and influenza virus was only positively identified in 18 cases. The CDC states that the historic 1968-69 "Hong Kong flu" pandemic killed 34,000 Americans. At the same time, CDC claims 36,000 Americans annually die from flu. What's up with that? Several years ago an article in the *British Medical Journal* soberly stated that, "If flu is in fact not a major cause of death, this public relations approach is surely exaggerated. Moreover, by arbitrarily linking flu with pneumonia, current data are statistically biased."

Laheij RJ, Sturkenboom MC, Hassing RJ, et al., "Risk of community-acquired pneumonia and use of gastric acid-suppressive drugs," *Journal of the American Medical Association*, 2004 Oct 27;292

(16):1955-60; and

Tea and Sympathy

Green tea decreases the incidence of influenza in elderly people in a study performed in Japan. The catechins, antioxidant phenolic compounds found in green tea and theanine, an amino acid-like compound were considered to be the effective components in green tea. The researchers conducted a randomized, double-blind, placebo-controlled trial of 200 healthcare workers for five months from November 2009 through April 2010 in three healthcare facilities for the elderly in Japan. The catechin/theanine group received capsules including green-tea catechins (378 mg/day) and theanine (210 mg/day). The control group received a placebo. The measured outcomes were the incidence of clinically defined influenza infection or confirmed influenza with viral antigen measured in

the laboratory, and the time for which the patient was free from influenza infection. The time for which the patient was free from clinically defined influenza infection was significantly different between the two groups.

Matsumoto K, Yamada H, Takuma N, Niino H, Sagesaka Y, "Effects of Green Tea Catechins and Theanine on Preventing Influenza Infection among Healthcare Workers: A Randomized Controlled Trial," *BioMed Central Complementary and Alternative Medicine*, 2011, 11:15 doi:10.1186/1472-6882-11-15.

Zinc and the Common Cold

A recent review of the scientific literature suggests that zinc, when taken within a day of the onset of cold symptoms, could reduce the severity and length of the illness. Past research has shown that zinc inhibits replication of cold viruses. The study reviewed 15 randomized controlled trials, enrolling 1360 participants of all age groups and compared zinc with a placebo. The study concluded that people taking zinc are less likely to have persistence of their cold symptoms beyond seven days of treatment if they supplement with zinc on the first day of the onset of symptoms. Continued zinc supplementation, for at least five months, was also found to reduce incidence of colds, school absenteeism, and prescription of antibiotics for children with the common cold. Antibiotics, of course, are not appropriate treatment for colds or for any type of viral infection, but they are still widely and inappropriately administered for a variety of non-bacterial infections including colds, sinus infections and most cases of bronchitis.

Singh M, Das RR, "Zinc for the common cold," Cochrane Database of Systematic Reviews 2011, Issue 2. Art. No.: CD001364. DOI: 10.1002/14651858.CD001364.pub3; *The Cochrane Database of Systematic Reviews*, 2011 Issue 9.

Why this is the flu season.

Sun exposure stimulates seasonal Vitamin-D production in the skin; Vitamin-D deficiency is common in the Winter, and activated Vitamin D has powerful effects on human immunity. It is an immune-system modulator, preventing excessive expression of inflammatory cytokines (chemical messengers of the immune system) and increasing the active potential of immune cells such as macrophages, neutrophils, monocytes, natural killer cells, and in the lining of the respiratory tract, where they play a major role in protecting the lung from infection.

Hope-Simpson RE, "The role of season in the epidemiology of influenza," *Journal of Hygiene* (London). 1981 Feb; 86 (1): 35-47.

What Kind of Vitamin D?

Vitamin D3 (cholecalciferol) is 87 percent more potent at raising blood levels of the vitamin than Vitamin D2 (ergocalciferol), according to a new study. In addition to the increase in potency, Vitamin D3 also produced a 2 to 3-fold increase in Vitamin D storage, compared with Vitamin D2. On average, 2000-5000 IU/day of Vitamin D3 may provide protection against influenza. Vitamin D3, the true form of Vitamin D, is produced in the skin from cholesterol, but Vitamin D precursors can be taken orally. Larger doses of Vitamin D taken for a short time strengthen the immune system. This allows the body to fight infection.

Heaney RP, Recker RR, Grote J, Horst RL, Armas LAG, "Vitamin D3 Is More Potent Than Vitamin D2 in Humans," *The Journal of Clinical Endocrinology & Metabolism*, March 1, 2011 vol. 96 no. 3.

What to do for flu?

Volunteers inoculated with live influenza virus are more likely to develop fever and evidence of an inflammatory immune response in the Winter. A controlled clinical study showed that Vitamin-D deficiency predisposes children to respiratory infections. Ultraviolet radiation (either from artificial sources or from sunlight) reduces the incidence of viral respiratory infections, as does cod liver oil (which contains Vitamin D). The clinical study showed that Vitamin D reduces the incidence of respiratory infections in children. Another randomized controlled trial using 1200 IU/day of Vitamin D for school children in Japan found a 64% reduction in Type A influenza cases compared with controls taking a placebo. The recent H1N1 "swine flu" was Type A. People in groups known to have lower Vitamin-D levels, such as pregnant women, had much higher rates of hospitalization than others. Vitamin D also reduces the risk of death from influenza by fighting bacteria that can lead to pneumonia.

Cannell JJ, Vieth R, Umhau JC, et al., "Epidemic influenza and vitamin D," *Epidemiology and Infection*, 2006 Dec;134(6):1129-40. Epub 2006 Sep 7; Urashima M, Segawa T, Okazaki M, et al., "Randomized trial of vitamin D supplementation to prevent seasonal influenza A in schoolchildren," *American Journal of Clinical Nutrition*, 2010 May; 91 (5): 1255-60.