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Our November 2009 Newsletter for Healthy Living

Essential Zinc

Other vitamins and nutrients may get more headlines, but experts say as many as two billion people around the world have diets deficient in zinc – and studies at Oregon State University and elsewhere are raising concerns about the health implications this holds for infectious disease, immune function, DNA damage and cancer. One new study has found DNA damage in humans caused by only minor zinc deficiency.

Zinc deficiency is quite common in the developing world. Even in the United States, about 12 percent of the population is probably at risk for zinc deficiency, and perhaps as many as 40 percent of the elderly, due to inadequate dietary intake and less absorption of this essential nutrient, experts say. Many or most people have never been tested for zinc status, but existing tests are so poor it might not make much difference if they had been. "Zinc deficiencies have been somewhat under the radar because we just don't know that much about mechanisms that control its absorption, role, or even how to test for it in people with any accuracy," said Emily Ho, an associate professor with the Linus Pauling Institute at OSU, and international expert on the role of dietary zinc. However, studies have shown that zinc is essential to protecting against oxidative stress and helping DNA repair – meaning that in the face of zinc deficiency, the body's ability to repair genetic damage may be



decreasing even as the amount of damage is going up.

Two studies recently published, in the *Journal of Nutrition* and the *American Journal of Clinical Nutrition*, found significant levels of DNA damage both with laboratory animals and in apparently healthy men who have low zinc intake. Zinc depletion caused strands of their DNA to break, and increasing the

that occurs with aging may also contribute to a higher incidence of infection and autoimmune diseases, researchers said in one study in the *Journal of Nutrition*.

Zinc is naturally found associated with proteins in such meats as beef and poultry, and in even higher levels in shellfish such as oysters. It's available in plants but poorly absorbed from them, raising additional concerns for vegetari-

“Inadequate zinc levels affect cellular health.”

intake of zinc reversed the damage back to normal levels. "In one clinical study with men, we were able to see increases in DNA damage from zinc deficiency even before existing tests, like decreased plasma zinc levels, could spot the zinc deficiency," Ho said. "An inadequate level of zinc intake clearly has consequences for cellular health."

Many zinc studies, Ho said, have focused on prostate cancer – the second leading cause of cancer deaths in American men – because the prostate gland has one of the highest concentrations of zinc in the body, for reasons that are not clearly known. When prostate glands become cancerous, their level of zinc drops precipitously, and some studies have suggested that increasing zinc in the prostate may at least help prevent prostate cancer and could potentially be a therapeutic strategy. There are concerns about the relationship of zinc intake to esophageal, breast, head and neck cancers. The reduced zinc status

ans. Inadequate intake is so prevalent in the elderly, Ho said, that they should usually consider taking a multivitamin to ensure adequate levels.

Zinc is an essential micronutrient for numerous cellular processes. But taking too much zinc can also be a concern, because in excess it can interfere with the absorption of other important nutrients like iron and copper. The recommended daily allowance is 8 milligrams a day for women, 11 for men, and 50 milligrams a day could be considered excessive, Ho said. "The consequences of zinc deficiency in adults have been understated despite the recognition of symptoms of zinc deficiency for decades," researchers wrote in one recent report. "A considerable body of evidence suggests that zinc deficiency may increase the risk of some chronic diseases, including cancer. This link may be attributed to the role of zinc in antioxidant defense and DNA damage repair."

Reference: *Science Daily*, Oct. 30, 2009. Oregon State University 2009, September Zinc Deficiencies: A Global Concern

What's Inside This Issue

- To Flu or Not To Flu
- November Event Schedule
- Holiday Turkey Selections
- November Specials and Monthly Coupon

Raw Foods

To Flu or Not To Flu

Influenza is a contagious viral respiratory infection. Symptoms include fever, chills, runny nose, sore throat, cough, muscle aches, fatigue and decreased appetite. Typically, the condition will improve after two to three days of bed rest, although some symptoms may persist for about a week. Death

caused directly by the flu virus is very rare. The vast majority of “flu deaths” are in fact due to bacterial pneumonia – a potential complication of the flu if your immune system is too weak. Other complications can include ear or sinus infections, dehydration, and worsening of chronic health conditions. The elderly and people with other preexisting medical conditions like asthma, diabetes, or heart disease, are at higher risk of developing pneumonia after a bout of flu.



“Flu vaccine may contain up to 250 times the EPA safety limit for mercury.”

The conventional treatment for bacterial pneumonia is an antibiotic, not a viral flu drug or vaccine. “But the vaccine will prevent the flu, which will prevent the possibility of developing pneumonia,” some might say. However, statistics do not support this assertion. Study after study, and master studies that compile the results from several studies to get a more objective result, arrive at the same conclusion: Flu vaccines DO NOT WORK, and in many cases do more harm than good. Statistics do show that BE-

FORE the CDC advocated vaccinating children under the age of five, the number of children dying from the flu was very low, and on the decline. Then, in 2003, just after children aged five and under started getting vaccinated, the number of flu deaths increased significantly. To add perspective to the media drumbeat, each year more Americans die from asthma and malnutrition than the flu. Unfortunately, the Center for Disease Control and Prevention (CDC) distorts the facts about flu deaths (36,000 each year), making the flu virus seem far more dangerous than is warranted. The actual number of people dying from influenza in 2005 (the most recent data available, published in June, 2009 by the National Center for Health Statistics, a CDC division) was 1,806. The remainder was caused by pneumonia. In 2004, there were just 1,100 actual flu deaths. The CDC data classifies those dying from pneumonia as dying from flu, which is inaccurate.

Aside from the confusing messages on the dangers of flu lurks a laundry list of harmful ingredients found in flu vaccines. The flu strains selected are cultivated in chick embryos for several weeks before being inactivated with formaldehyde, which is a known cancer-causing agent. Then they are preserved with thimerosal, which is 49 percent mercury by weight. According to the CDC, the majority of flu vaccines contain thimerosal.

Some contain as much as 25 mcg of mercury per dose. This quantity is more than **250 times the Environmental Protection Agency’s safety limit for mercury**. In addition to mercury, flu vaccines also contain other toxic or hazardous ingredients such as: aluminum (linked to Alzheimer’s); Triton-X, a detergent; phenol (carbolic acid); ethylene glycol (anti-freeze); betapropiolactone, a disinfectant; nonoxynol, a compound used to stop the growth of sexually-transmitted diseases; octoxinol-9, a vaginal spermicide; and sodium phosphate. Serious reactions to the flu vaccine include, but are not limited to: severe allergies to various ingredients; Guillain-Barre Syndrome (a severe paralytic disease that is fatal in about 1 in 20 cases); encephalitis (brain inflammation); neurological disorders; and thrombocytopenia (a serious blood disorder).

Many studies indicate that flu vaccines are neither an effective method of flu prevention nor of saving lives. Determining efficacy may be as easy as reading the information coming straight from the vaccine manufacturer. This quote is taken directly from the flu vaccine FLULAVAL’s package insert for the 2009-2010 formula: “*FLULAVAL is an influenza virus vaccine indicated for active immunization of adults 18 years of age and older against influenza disease caused by influenza virus subtypes A and type B contained in the vaccine. This indication is based on immune response elicited by FLULAVAL, and there have been no controlled trials demonstrating a decrease in influenza disease after vaccination with*

November Event Schedule

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Give your health a boost this holiday!

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Healthy Lifestyles Advocate and Coach
w/ **Don Bennett**, lecturer and author of
*Avoiding Degenerative Disease: An
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Lecture w/ raw food demo & tasting

Thursday, Nov. 19 @ 6:30-8PM

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10:30-11:30AM or 7-8PM

Admission is Free; call 734 996-8111

To Flu or Not To Flu *continued*

FLULAVAL.” Stated for the laymen: There are NO controlled trials demonstrating ANY decrease in your risk of contracting the flu at all after vaccination! (It also states that each dose contains a total of 25 mcg of mercury.)

There is significant scientific evidence available to support avoiding flu vaccines. A study published in the October 2008 issue of the *Ar-*



chives of Pediatric and Adolescent Medicine found that vaccinating young children against the flu had *no impact* on flu-related hospitaliza-

tions or doctor visits during two recent flu seasons. The researchers concluded that "significant influenza vaccine effectiveness could not be demonstrated for any season, age, or setting" examined. A 2008 study published in the *Lancet* found that influenza vaccination was NOT associated with a reduced risk of pneumonia in older people. This supports an earlier study published in The New England Journal of Medicine. Research published in the *American Journal of Respiratory Care and Critical Care Medicine* also confirms that there has been no decrease in deaths from influenza and pneumonia in the elderly, despite the fact that vaccination coverage among the elderly has increased from 15 percent in 1980 to 65 percent now.

In 2007, researchers with the National Institute of Allergy and Infectious Diseases and the National Institutes of Health published this conclusion in the *Lancet Infectious Diseases*: "We conclude that frailty selection bias and use of non-specific endpoints such as all-cause mortality, have led cohort studies to greatly exaggerate vaccine benefits." A large-scale, systematic review of 51 studies, published in the *Cochrane Database of Systematic Reviews* in 2006, found no evidence that the flu vaccine is any more effective than a placebo in children. The studies involved 260,000 children, age 6 to 23 months.

A safer, more effective approach to avoiding influenza may be a fo-

cus on immune-support and prevention. Vitamin D, "the sunshine vitamin," may be one of the most beneficial vitamins for disease prevention. Unfortunately, it's also one of the vitamins that a vast majority of people are deficient in due to lack of regular exposure to sunshine. Published in the journal *Epidemiology and Infection* in 2006, the hypothesis presented by Dr. John Cannell and colleagues in the paper *Epidemic Influenza and Vitamin D* raises the possibility that influenza is a symptom of vitamin D deficiency. The vitamin D formed when your skin is exposed to sunlight regulates the expression of more than 2,000 genes throughout your body, including ones that influence your immune system to attack and destroy bacteria and viruses. Hence, being overwhelmed by the "flu bug" could signal that your vitamin D levels are too low, allowing the flu virus to overtake your immune system.

At least four recent studies show an inverse association between lower respiratory tract infections and 25(OH)D levels. That is, the higher your vitamin D level, the lower your risk of contracting colds, flu, and other respiratory tract infections. A 2007 study suggests higher vitamin D status enhances your immunity to microbial infections. Researchers found that subjects with vitamin D deficiency had significantly more days of absence from work due to respiratory infection than did control subjects. A 2009 study on vitamin D deficiency in newborns with acute lower respiratory infection (ALRI) confirmed a strong, positive correlation between newborn's and mother's vitamin D levels. Over 87 percent of all newborns and over 67 percent of all mothers had vitamin D levels lower than 20 ng/ml, which is a severe deficiency state. Newborns with vitamin D deficiency appear to have an increased risk of developing ALRI, and since the child's vitamin D level strongly correlates with its mother's, the researchers recommend that all mothers optimize their vitamin D levels during pregnancy, especially in the winter months, to safeguard their baby's health.

A 2009 analysis of the Third National Health and Nutrition Examination Survey studied the association between vitamin D levels and recent upper respiratory tract infection (URTI) in nearly 19,000 subjects over the age of 12. This study linked declining Vitamin D levels to increased incidence of URTI. The positive correlation between lower

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vitamin D levels and increased risk of URTI was even stronger in individuals with asthma and chronic obstructive pulmonary disease.

Another 2009 report in the journal *Pediatric Research* stated that infants and children appear more susceptible to viral rather than bacterial infections when deficient in vitamin D, and that, based on the available evidence showing a strong connection between vitamin D, infections, and immune function in children, vitamin D supplementation may be a valuable therapy in pediatric medicine. Other key steps that may help you stay flu-free are eating a nutritious diet, avoiding sugar, exercising, getting adequate sleep, addressing emotional stress and washing hands regularly.

Reference: FLULAVAL Patient Counseling Information, P. 17, Revised July 2009
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Pediatric Research 2009 Jan 28



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