Evidence that Vitamin C, Vitamin D and Probiotics are Protective against viral Illnesses

Vitamin D and the anti-viral state

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**Abstract**

Vitamin D has long been recognized as essential to the skeletal system. Newer evidence suggests that it also plays a major role regulating the immune system, perhaps including immune responses to viral infection. Interventional and observational epidemiological studies provide evidence that vitamin D deficiency may confer increased risk of influenza and respiratory tract infection. Vitamin D deficiency is also prevalent among patients with HIV infection. Cell culture experiments support the thesis that vitamin D has direct anti-viral effects particularly against enveloped viruses. Though vitamin D's anti-viral mechanism has not been fully established, it may be linked to vitamin D's ability to up-regulate the anti-microbial peptides LL-37 and human beta defensin 2. Additional studies are necessary to fully elucidate the efficacy and mechanism of vitamin D as an anti-viral agent.

**Vitamin D may protect against viral infections during the winter**
Vitamin D may be known as the sunshine vitamin, but a research report appearing in the *Journal of Leukocyte Biology*, April 2012, shows that it is more than that. According to the report, insufficient levels of vitamin D are related to a deficiency in our innate immune defenses that protect us from infections, neoplasias or autoimmune diseases. Since vitamin D levels decrease during autumn and winter when days are shorter and sunlight is relatively weak, this may explain why people are more prone to viral infection during these times. It also suggests that increased vitamin D intake, especially in older populations, could strengthen people's innate immunity against viral infections.

**The effectiveness of vitamin C in preventing and relieving the symptoms of virus-induced respiratory infections**


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.

**Probiotics in respiratory virus infections.**


Twenty-eight trials reported that probiotics had beneficial effects in the outcome of respiratory tract infections (RTIs) and five showed no clear benefit. Only eight studies reported investigating viral etiology from the respiratory tract, and one of these reported a significant decrease in viral load. Based on experimental studies, probiotics may exert antiviral effects directly in probiotic-virus interaction or via stimulation of the immune system.
Protect Yourself from Respiratory Infections with Probiotics
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According to University of Pennsylvania School of Medicine researchers, doctors frequently misuse antibiotics when treating patients hospitalized with respiratory tract infections. In a study published in *Infection Control and Hospital Epidemiology*, doctors at two Pennsylvania hospitals were found to be using antibiotics to treat patients with viral infections, which are known to not respond to the drugs.....

This study reflects what is going on in hospitals, clinics and doctors' offices throughout the country. Overuse of antibiotics actually wreaks havoc with the immune system by killing off not only bad bacteria but also the good bacteria - *probiotics* - residing in the gut that battles infection from viruses, yeasts, fungi and parasites.
Dr. Eisenstein’s Minimum Daily Probiotics Recommendations

Colony Forming Units (CFU)

1. Health maintenance adults 20 Billion CFU daily
2. Children 5 Billion CFU daily
3. Colds and Flu 50 Billion CFU for 7 days
4. Chronic conditions 50 Billion CFU daily

Please click on the image
The miracle of probiotics can help restore us to optimal health. As the antithesis of antibiotics, which kills bacteria indiscriminately (both unfriendly and friendly) while still allowing other harmful bacteria, viruses, fungi and yeast to proliferate unchallenged, probiotics work to rebuild and rebalance this intestinal flora so critical to our health and our absorption of vital nutrients. In fact, probiotics are quite necessary in the aftermath of any course of antibiotics, and when taken properly, in conjunction with a healthy diet and lifestyle, it can help improve health dramatically. Their many benefits include, but are not limited to, the following:

1. Relief from gastrointestinal disorders
2. Better digestion and nutrient absorption
3. Increased immune function
4. Reversed metabolic syndrome and encouraged weight loss
5. Clearer, better nourished skin
6. Improved urogenital health in women
7. Relief from Allergy
8. Better Brain Function
9. Common Infectious Diseases
10. Lowers Blood Cholesterol
11. Lowers Blood Pressure
12. Helps with Obesity and Metabolic Syndrome
13. Increases Vitamin D levels

And more...
Dr. Eisenstein’s Daily Vitamin D Recommendations

1. Get a Vitamin D blood test 25(OH)D
2. Make sure your whole family has adequate blood levels of Vitamin D this flu season (>50 80ng/ml). Most children and adults Vitamin D blood level is <30ng/ml.
3. Adult (and children >100lbs) maintenance ........ 10,000 IU daily.
4. Children’s maintenance: ........................................ 1,000 IU daily/25lbs
5. At the first symptoms of a cold or flu 1,000IU/ lb. daily for 14 days.

Examples:
50 lb daily 50,000IU daily.
100 lb daily 100,000IU daily.
150 lb daily 150,000IU daily.
200 lb daily 200,000 IU daily
Vitamin C Recommendations

Dr. Eisenstein's Minimum Daily Vitamin C Recommendations:

Health maintenance adults 1,000mg daily
Children 500mg daily
Colds and Flu 4-8 grams daily for 7 days
Chronic conditions 3,000mg-5,000mg daily

The Health Benefits of Vitamin C

Vitamin C may offer health benefits in these areas:

1. Stress. A recent meta-analysis showed vitamin C was beneficial to individuals whose immune system was weakened due to stress—a condition which is very common in our society,” says Moyer. And, he adds, “because vitamin C is one of the nutrients sensitive to stress, and it is the first nutrient to be depleted in alcoholics, smokers, and obese individuals, it makes it an ideal marker for overall health.”

2. Colds. When it comes to the common cold, vitamin C may not be a cure. But studies show that it can help prevent more serious complications. “There is good evidence that taking vitamin C for colds can reduce the risk of developing further complications, such as pneumonia and lung infections,” says Moyer.

3. Stroke. A recent study in the American Journal of Clinical Nutrition found that those with the highest concentrations of vitamin C in their blood were associated with a 5% lower stroke risk than those with the lowest concentrations. The reasons for this are not completely clear. But what is clear is that people who eat plenty of fruits and vegetables have higher blood levels of vitamin C.

4. Skin Aging. Vitamin C affects cells on the inside and outside of the body. A study published in the American Journal of Clinical Nutrition examined links between nutrient intakes and skin aging in 4,025 women aged 40-74. They found that higher vitamin C intakes were associated with a lower likelihood of a wrinkled appearance, dryness of the skin, and a better skin-aging appearance.

Other studies have suggested that vitamin C may also:
- Improve wound healing
- Reduce inflammation
- Reduce the risk of cancer and cardiovascular disease.

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1. Adults............................ 1,000mg daily
2. Children......................... 500mg daily

At the first symptoms of a cold or flu

3. Adults 4-8 grams per day
4. Children 2-4 grams per day
Dr. Eisenstein’s Daily Recommendation Omega 3

Omega 3
Healthy individuals

2 grams (4 gel capsules) Omega-3 fish oil Single Strength
1 gram (2 gel capsules) Omega-3 fish oil Double Strength
or
500 mg (1 gel capsule) Krill oil

People suffering from chronic conditions
(i.e. Pain, diabetes, obesity, heart issues, etc.)

2-3 grams (4-6 gel capsules) Omega-3 fish oil double strength
or
2-3 grams (4-6 gel capsules) Krill oil