



## *Your Monthly Update*

### *Dear Colleague*

Welcome to the November newsletter from Pure Bio Ltd.

It's that time of year when the central heating is turned on, people button down the hatches and dig-in for the winter time and the microbes multiply by the million. This year, fear of infection is even more prevalent with the threat of Avian flu spreading into Europe.

With this in mind, we have chosen influenza as our topic for the month.

The long and arduous task of updating our website with our entire range is now complete, so do please take a look at [www.purebio.co.uk](http://www.purebio.co.uk). We will be launching a few additional products in the New Year, to coincide with the launch of the new catalogue, which is currently in its early stages of preparation.

We always welcome feedback and suggestions.

## **Influenza**

Maintaining a healthy immune system is the prime way of protecting against the influenza virus. This can be achieved through

- *A healthy lifestyle*
- *A good diet*
- *A supplement regime*

## **Healthy Lifestyle**

- Increased stress levels lead to atrophy and decreased activity of the thymus gland by up to 60% maximum potential.
- Adequate amounts of sleep are essential for the immune system to recuperate
- Neuro-immunological studies have shown that laughter, or even anticipation of a good time increases the number and activity of T-cells
- 30 minutes of aerobic exercise five times a week has been shown to boost the production of WBCs, increase macrophage activity and increase destruction of xenobiotics. It also raises production of interleukin and interferon
- Alcohol and tobacco consumption; prescribed, non-prescribed and recreational drugs; elevated glucose; excess sugar consumption and chemical exposure all weaken the immune system (glucose and vitamin C compete for the same transport sites into the WBCs)

## A good diet

- Avoid caffeine, alcohol and refined carbohydrates
- Increase intake of antioxidant rich fruits and vegetables – blueberries, blackberries, sweet potatoes, red peppers, apricots. Garlic, onions and shiitake or maitake mushrooms are also immune system enhancers
- Excess fat from meat, dairy and trans fats in processed foods depress immune function
- Adequate liquid intake is essential. Dehydration of the upper respiratory tract mucous membrane allows much greater viral proliferation. For this reason, vaporisers will also repel viral infection. However, drinking concentrated sources of sugar such as fruit juice reduces the phagocytic activity of WBCs. For this reason, fruit juices should be diluted by at least 50%

## Nutritional Supplementation

**Vitamin C** – 500mg to 1000mg every two hours for the first day of infection and 3 x daily thereafter (or up to bowel tolerance). Vitamin C has been shown to shorten the course and severity of acute viral infections. Although vitamin C is both antiviral and antibacterial, its primary effect is by increasing host resistance. It enhances WBC production; increases interferon levels, antibody responses, secretions of thymic hormones; and increases integrity of connective tissue –

- **Buffered Ascorbic Acid PE** (capsules or powder)
- **Pure Ascorbic Acid PE** (capsules or powder)

**Zinc** – zinc possesses direct antiviral activity and has been shown to reduce the duration of an acute viral infection by inhibiting viral replication -

- **Zinc 30(picolinate) PE**
- **Zinc Citrate PE**
- **Zinc Orotate (Kloesterl)**

**Beta-carotene** – provides significant antioxidant protection to the thymus gland -

- **Beta-carotene PE**

**Olive Leaf Extract** – contains the active ingredient oleuropein – a potent anti-viral, anti-bacterial and anti-fungal agent by stimulating phagocytosis -

- **Olive Leaf Extract PE**

**Elderberry** – inhibits the replication of the influenza virus (probably by staining and coating the virus, rendering it inactive) -

- **Immuherbs PE**

**Maitake, Shiitake and Reishi** – contain polysaccharides that promote optimal immune cell responses and proper enzyme activity in the cells -

- **Maitake D-Fraction® PE**
- **M/R/S Mushroom Formula PE**

**Cat's Claw** – the alkaloids in Cat's Claw are specifically associated with enhancing immune system cell function, including phagocytosis and macrophage activity -

- ***Cat's Claw capsules PE***
- ***Cat's Claw Tincture 30ml***

**Ginger** – the primary active ingredient in ginger has been shown to have specific therapeutic activity against H. influenzae, Staph. Aureus, Strep. Pyogenes and Strep. pneumoniae -

- ***Ginger Extract PE***
- ***Ginger Tincture 30ml***

**Siberian ginseng** - Extract from the Eleutherococcus senticosus root has been shown to inhibit the productive replication of the influenza A virus -

- ***Eleuthero 0.8% E & B™ PE***
- ***Siberian Ginseng Tincture 30ml***

## **Herbal tinctures**

- ***Echinacea angustifolia***
- ***Hydrastis Canadensis (Golden Seal)***
- ***Glycyrrhiza glabra (Licorice)***
- ***Astragalus membranaceus***

are all potent anti-viral agents which also stimulate the body's natural immune mechanisms

## **Preventative Nutrition:**

Glutathione has been shown to block influenza viral infection and replication. Infection by RNA virus induces oxidative stress in host cells, which depletes glutathione in the epithelium of the oral, nasal and upper airway -

- ***Reduced Glutathione PE***

Green tea catechins inhibits proteases involved in infection by the influenza virus. It has been shown most effective at the early phase of infection

The influenza virus has been shown to demonstrate increased virulence in the presence of selenium deficiency -

- ***Selenium (selenomethionine) PE***
- ***Selenium Citrate PE***

## **Influenza & Aging**

Aging is accompanied by a series of structural and functional changes in the respiratory system, some of which depend on declining performance of the immune system. The dominant risk for morbidity and mortality lies in respiratory infections with pneumococci and influenza virus. These risks are increased by immunosenescence, either intrinsic due to aging or secondary to underlying

diseases, poor diet, medication etc. Adaptive responses are further degraded by post vaccination responses to influenza virus antigen.

After the age of 50 several abnormalities develop in the lungs: reduced muco-ciliary clearance, loss of elastic fibres and low-grade inflammation. There are also alterations in the mononuclear cells with an increase in activated T-lymphocytes. The defects in humoral immunity are, in part, attributed to a functional deficiency of zinc and selenium. These two minerals are therefore the most clinically significant in the protection of the elderly against influenza and pneumonia.

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