

ASTHMA ALLERGIES

By Ted Lau

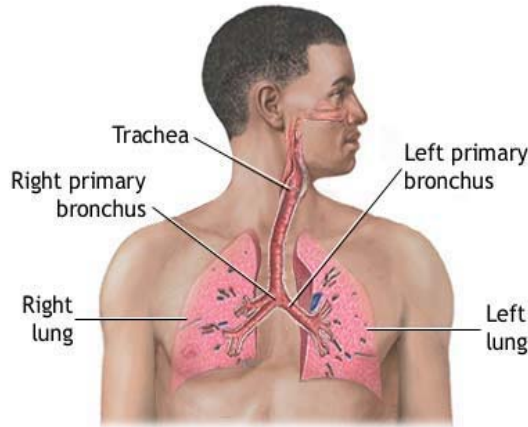


Asthma can be a fatal disease, during the year of 1997 more than 5,000 people died from asthma attacks.

Preventative measures, such as seeing a physician regularly can aid a person suffering from asthma in controlling their condition. The occurrence of asthma symptoms can be psychologically traumatic for those who have experienced them.

The characteristics of asthma is the slight "wheezing" of each breath of inhalation/exhalation. The subject experiencing these episodes may describe breathing as being considerably heavier, as if pressure has been placed on their chest. Breathing increases to a greater rate to compensate for the oxygen (O₂) deficiency.³ Asthma is a disorder that causes the airways in the

lungs to be constricted and blocked. The mechanisms of the lungs, the bronchiole and aveoli have been hin-



tered. Common asthma promoters include: cigarette smoke, air pollution, respiratory infections, influenza, allergens, pollen, and other substances that irritate the lungs.⁴ Asthma "triggers" may vary from person to person; each individual may be more sensitive to certain allergens or reactive stimuli. Eight signs of asthma indication include:

1. Wheezing, breathing with a slight whistling sound that is progressive with each breath.
2. Coughing that gets worse over minutes to hours.

3. Excessive breathing, (fast and heavy).
4. Blue nails and lips.
5. Sudden anxiety and apprehension.
6. Shortness of breath.¹

Recent developments devices and medications have made asthma much more manageable. The introduction and utilization of:

- Peak flow meters
- Inhaled steroids
- Inhaled Beta Agonist
- Cromolyn and Nedocromil
- Oral Steroids
- Nonsedating Anti-histamines²

These devices or medications have aided in the advancement of treating asthma.

Aside from medication and hi-tech devices, a healthy life style of physical activity may encourage cardiovascular development. The intensity of the exercise should be determined according to the individual.

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Health Beat

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Special Point of Interest:

Mono is dubbed the "kissing disease" because EBV (*Epstein-Barr virus*) is found in the saliva and is commonly transmitted by close contact. As **children**, transmission can occur by the parents kissing them or by sharing toys with other children. If children do not contact EBV as children, it is common to become infected in the **teenage** years from kissing. It is estimated that at any one time 15-20% of infected individuals (**adults**) have **active** EBV in their saliva. At other times it remains **latent** in their body.

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California State University, Long Beach has facilities that handles resources pertaining to the subject of asthma. Physicians are available on-campus at the SHS, (Student Health Services). A physical examination is strongly recommended in-order to identify any medical conditions. With professional therapy and medical guidance, taking a

breath of air will become a fearless bodily function.

Information:

CSULB Student Health Services (SHS)
(562) 985-1638

References:

1. Nomran, H., Edelman, M.D.,(1997) The American Lung Association Asthma Advisory Group, American Lung Association, Family Guide to Asthma and Allergies 1st

ed., Little, Brown and Company, New York.

2. Lieberman, Phil L.,(1999) Understanding Asthma, University Press of Mississippi, Jackson.
3. Paula Yurkanis Bruice, (1995) University of California, Santa Barbara, Organic Chemistry 3rd ed., Prentice Hall, New Jersey, Upper Saddle River.
4. Colin Baird, University of Western Ontario, Environmental Chemistry 2nd ed., W.H. Freeman and Company

FEELING UNDER THE WEATHER?...by Nancy A. Copeland

During the fall and winter season, there are many viruses the general population will encounter. Two of the most common viral infections are influenza and colds. These two viruses usually happens in cycles:¹

Sporadic - Sporadically occurring cases of influenza-like illness or culture-confirmed influenza, with no outbreaks detected.

Regional - Outbreaks of influenza-like illness or culture-confirmed influenza in a county or counties having a combined population of less than 50% of the state's total population.

Widespread - Outbreaks of influenza-like illness or culture-confirmed influenza in a county or counties having a combined population comprising 50% or more of the state's total population. (See **Figure 1** for **Regional and Widespread**)

Influenza, or the "flu", is a viral disease of the upper respiratory tract, affecting the nose, throat, bronchial tubes, and lungs. The flu is similar to a cold because it may cause coughing and a sore throat. In more serious infections, flu symp-

toms may entail severe aches, high fever, rashes, pains, fatigue and loss of muscle strength. It is usually spread through air droplets (through coughing or sneezing) or person-to-person contact, and can survive for up to 3 hours in an enclosed room. Influenza is divided into 3 types; Influenza A, B, and C. Influenza A and B is associated with increased rates of hospitalizations and death each year in the United States. Influenza C usually causes mild or no symptoms at all.

While each influenza season is unique, the elderly and chronically ill are usually the most affected by the flu. In addition, 55% of the 150,000 to 300,000 people, who are hospitalized each year, are between the ages of 19 and 65. Rates of infection and hospitalization may vary among age groups and from one season to another. This highly contagious virus typically affects about 30% to 50% of Americans each winter. From 1985 to 1999, the U.S. death rate from influenza has actually risen each year, which may be attributable to a number of factors. On average, approximately 20,000 Americans die from the complications of influenza each year. During the 1998-1999 flu season, there were about 50,000 deaths due to the flu.

Influenza can become life threatening

if it progresses to pneumonia or bronchitis. Other complications may be ear infections, chronic lung disease, and fever related convulsions. There are treatments for influenza, however the change in genetic make-up of the virus from year to year, can make this virus very complicated to prevent with present vaccines that are composed of inactivated viral fragments of existing strains. Currently, there are a new class of drugs against both A and B types, called neuraminidase inhibitors. The new class of drugs has fewer side effects than the previous antiviral medications, shortens the duration of the flu by one to three days, and reduces complications (including pneumonia and bronchitis). Flu vaccinations are the public's best chance to protect himself or herself from transmission of the virus. Vaccinations have a 60% to 90% success rate among children and healthy adults.³

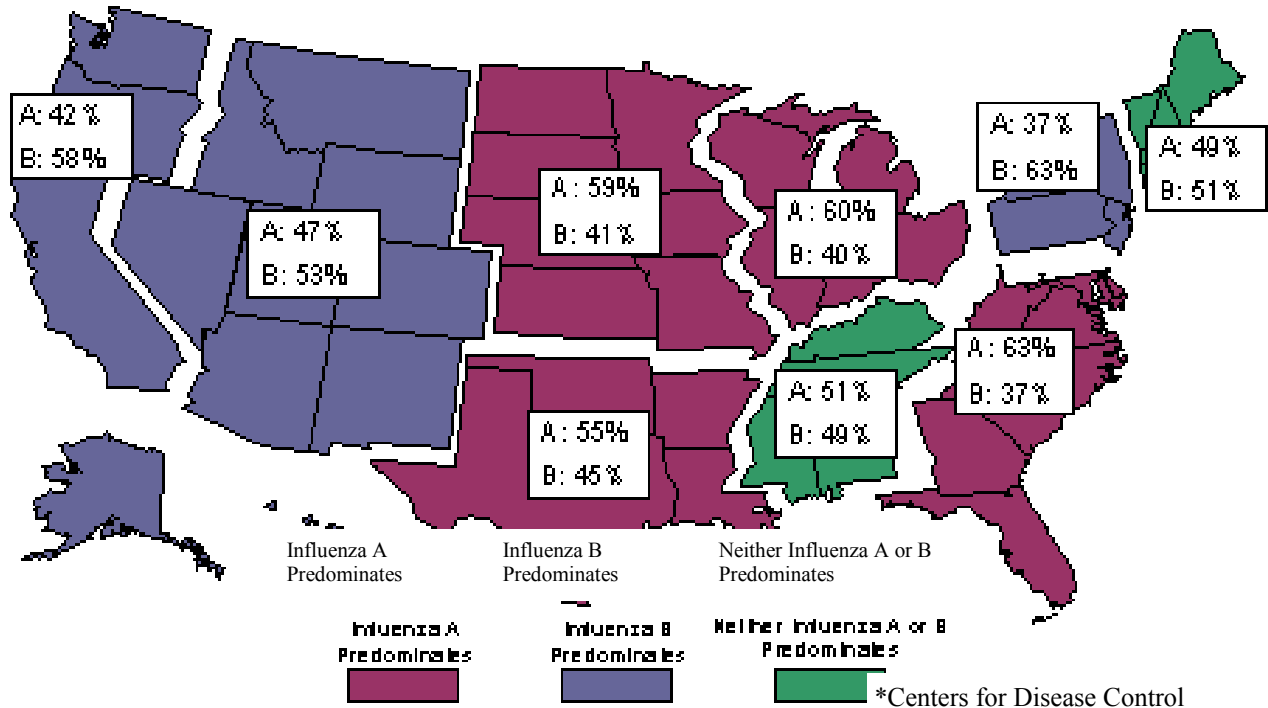
Colds, which are caused by the herpes zoster virus, occur frequently in our population, striking an individual up to 12 times a year. A cold is a viral infection of the nose and throat. The symptoms of a cold are usually stuffiness, sore throat, and

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Figure 1

**Predominant Influenza Virus Isolates by Region
2000-2001**

National: A: 54% B: 46%



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cough. A cold may progress slowly, starting with a scratchy throat, it progresses into a runny or stuffy nose, sore throat and or cough, and then you probably have contacted a cold.⁴

Supplements used to lessen the severity of the symptoms associated with the common cold and flu

Echinacea: A perennial herb reduces cold and flu symptoms and helps recovery. There are three main species of Echinacea: Echinacea Purpurea, Echinacea Angustifolia, and Echinacea Pallida; the most widely used form of Echinacea. It is not clear if one type is better than the other.⁵ **Echinacea Purpurea** is used to accelerate the

healing process of wounds. It can also produce immune effects when given internally or parenterally. Other effects also include an increase of the number of white blood cells and spleen cells, activation of the capacity for phagocytosis by human granulocytes, the production of cytokines, elevations in body temperature, and reproduction of T-helper cells.⁶ **Echinacea Angustifolia** is used to advance the natural immune system of the body, particularly in infectious conditions. These conditions are commonly of the nose and throat, herpes simplex, wounds, inflammation of connective tissue, metabolic troubles, and abscesses.^{7,8} **Echinacea Pallida** is used in the treatments of the common cold, cough/bronchitis, inflammation of the mouth and pharynx, and fevers.^{9,10} The scien-

tific evidence shows that when Echinacea is taken at the onset of a cold or flu, Echinacea can stimulate the immune system, therefore allowing you to get better faster, while reducing the amount of symptoms experienced.

Side Effects: Are rare and if there are any, it is usually gastrointestinal symptoms, increased urination, and allergic reactions. Persons suffering from autoimmune deficiencies should avoid taking Echinacea. Autoimmune deficiencies such as: AIDS, lupus, rheumatoid arthritis, multiple sclerosis, tuberculosis, or leukocytosis. There is fear that Echinacea will activate immunity in the wrong way.

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There is no evidence that proves this to be true.

Zinc: Zinc is a common deficiency found in the American diet, especially senior citizens, and those who get sick very easily. In cases of zinc deficiencies, the immune system does not function properly. Zinc can be ingested in many different ways, such as: sucking on high dose lozenges at the onset of a cold, or taking multi-vitamins that contain this mineral. Zinc supplements are very useful for those who get sick often.¹²

Side Effects: High doses of zinc should not be ingested for more than two weeks because such doses could actually suppress the immune system. Other symptoms may then develop with the suppression of the immune system. In addition, zinc can also deplete the body of copper when taken over a long period of time.¹³

Andrographis: This is a shrub that is found throughout India and other Asian countries. This herb is known for its ability to reduce the symptoms and shorten the duration of colds. A double blind study that contained 59 people concluded that andrographis could reduce cold symptoms such as fatigue, sore throat, sore muscles, runny nose, headache, and lymph node swelling. In a case study, participants either received 1,200 mg of andrographis or placebo. By the fourth day of the study, the andrographis group showed definite improvement, compared to the placebo group.¹⁴

Side Effects: There have been no adverse side effects reported in the

human studies of the effects of andrographis on the body. Full formal safety studies have not been completed; therefore it is not recommended that young children, pregnant, nursing women, people with kidney disease, and those with liver disease consume this herb. There are some concerns from animal studies that andrographis may impair fertility. One study showed that male rats became infertile when fed 20 mg of andrographis powder per day. In this case, rats stopped producing sperm and demonstrated physical change. Researchers also detected substantiation of biological relapse in the testicles. However, another study showed no evidence of testicular toxicity in male rats that were given up to 1 g per kilogram of body weight per day for 60 days, so this issue remains imprecise.^{15,16}

Osha: Found in high altitudes in the Southwest and Rocky Mountains, the root of Osha is a remedy used for the treatment of upper respiratory tract infections. When taken, it may induce sweating, increase appetite, relax smooth muscle tissue (therefore moderating the cough reflex), and improve digestion.¹⁷ **Side Effects:** Studies in relation to this flower are currently incomplete. Because of this reason, nursing women, young children, and those suffering from kidney or liver disease are not recommended for ingestion.¹⁸ Enhances immunity over the long term, including ashwaganda, astragalus, suma, garlic, reishi, and maitake.

Elderberry: This flower is known for significantly reducing the length and severity of flu symptoms. Elderberry is usually made by boiling 3 to 5g of dried flower in a cup of boiling water for 10 to 15 minutes to produce tea.

Safety Issues: Elderberry is generally regarded as safe. There are placid side effects that consist of mild gastrointestinal distress or allergic reaction. Adverse effects concerning young children, pregnant or nursing women, or those with severe liver or kidney disease has not been established.¹⁹



References:

1. [Http://www.msn.com.com/Health-Common-Cold-and-Flu-1918-Flu-Pandemic-could-repeat](http://www.msn.com.com/Health-Common-Cold-and-Flu-1918-Flu-Pandemic-could-repeat)
2. The chart: <http://www.cdc.gov/ncidod/diseases/flu/weeklyarchives2000-2001/00-01summary.htm>
3. [Http://www.ivillagehealth.com/library/nwh/content/0,4482,215912_227102,00.html](http://www.ivillagehealth.com/library/nwh/content/0,4482,215912_227102,00.html)
4. [Http://www.findarticles.com/cf_0/m1355/8_99/70637557/p1/article.jhtml?term=%2BCold+%2BDisease+%2BPrevention.htm](http://www.findarticles.com/cf_0/m1355/8_99/70637557/p1/article.jhtml?term=%2BCold+%2BDisease+%2BPrevention.htm)
5. Bauer, R. (1991). Echinacea species as potential immunostimulatory drugs. *Econ med Plant Res* 5: 253-321.
6. Melchart, MD. (1994). Immunomodulation with Echinacea- A Systematic Review of Controlled Clinical trials. *Phytomedicine* 1: 245-254.
7. Schoenberger, D. (1992). The Influence of Immune-Stimulating Effects of Pressed Juice from Echinacea

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(Continued from page 4)

- Purpura on the Course and Severity of Colds. Forum Immunol 8: 2-12.
8. Springer-Verlag (1989). Rational Phytotherapy. Natural Health Bible. 314-319, 345-370.
 9. Bauer R (1991). Echinacea Species as Potential Immunostimulatory Drugs. Economic Medical Plant. (5), 253-321.
 10. Wagner, V.(1985). Immunostimulating Polysaccharide (Heteroglycans) of Higher Plants. Arzneimittelforschung (35), 1069-1075.

11. Hoheisel O (1997). Echinagard treatment shortens the course of the common cold. A Double-Blind Placebo-Controlled Clinical Trial. (9), 261-268.
12. [Http://www.msn.com](http://www.msn.com) - Zinc Gel May Curb Common Cold
13. Eby, G (1997). Zinc ion availability. The Determinant of Efficacy in Zinc Lozenge Treatment of Common Colds. (40), 483-493.
14. Hancke, J.(1997). Controlled Clinical Study of Standardized Andrographis Paniculata Extract in Common Cold: A Pilot Trial. Phytomedicine (34), 318-340.
15. Hancke, J.(1995) A Double-Blind Study With a New Monodrug Kan Jang: Decrease of Symptoms and Improvements in the Recovery from Common Colds. Phytotherapy (9), 559-562.
16. Akbarsha, M.A. (1990) Antifertility Effects of Andrographis Paniculata in Male Albino Rat. Experimental Biology 28 (5), 421-426.
17. Bensky D., Gamble, A. (1986) Chinese Herbal Medicine. Material Medical. Seattle, 383-385.
18. Moore, M. (1979) Medicinal Plants of the Mountain West. Santa Fe, NM: Museum of New Mexico Press,119.
19. Zakay-Rones, Z. (1995) Inhibition of Several Strains of Influenza

IS YOUR THROAT FEELING A LITTLE IRRITATED?

(The difference between mono and strep throat)

By Michelle Biba

Funny how the flu this time around has been a bit delayed. To my knowledge the flu has been at it's worst ever. Did you know that Strep throat is the most common of bacterial infections, accounting for about 15% of all sore throats that get diagnosed in the doctor's office? Sometimes we find that a sore throat may be something a bit more serious than the average sore throat. We find that the posterior pharynx and tonsillar pillars may be covered with a gray-white membrane or mucous. The pharynx is



Figure 2: Strep virus streptococci

symptoms of illness. Most infections are relatively mild illnesses such as "strep throat," or impetigo (a skin condition). On rare occasions, these bacteria can cause other severe and even life-threatening diseases.

Strep throat is more serious than the other 85% of sore throats, because if not treated with antibiotics, it sometimes can cause more serious pus-forming infections. In fact, the scientific name for the strep that causes sore throats is "pyogenes," or "pus-maker." Streptococci also produce toxins that can cause circulatory collapse (shock) in streptococcal toxic shock syndrome or fever and a rash in scarlet fever. Rheumatic fever can damage the heart, joints, and sometimes the brain. Damage from these post-streptococcal diseases can be life-threatening and even permanent. Only a physician can diagnose a streptococcal infection.



Figure 1: Strep throat

often described as beefy or bright red, with the color ending abruptly at the soft palate.¹ Tonsils are commonly swollen and are covered with a confluent gray-white mucous. The breath is characteristically foul. You may find yourself with a headache, fever, a high pulse or even nausea with a chance of vomiting.

Streptococcus is a bacterium often found in the throat and on the skin. People may carry streptococci in the throat or on the skin and have no

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IS YOUR THROAT FEELING A LITTLE IRRITATED?

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What causes this?

We can blame it on the streptococci...they are everywhere. They are passed around in the same way as **cold viruses**, by coughing, sneezing, or getting mucus or saliva on the hand, and then touching other people. However, they are less contagious than a cold virus.²

Treatment: Some would argue that a throat culture is always necessary and that treatment should be delayed until culture results become available.³ Strep is usually treated by a prescription of antibiotics and if you find yourself weak you'll be asked to have lots of rest.

Now what about the Mono a.k.a. the kissing disease?

This is caused by a virus known as the *Epstein-Barr virus* (EBV) a virus that affects somebody at one point of their life or another. How can you get this virus? The Epstein-Barr virus is a member of the herpes family. It's carried in the salivary glands, which is why kissing usually transmits it. The virus is present for a long time. It's often found in saliva six months after exposure and occasionally after several years.²

How do you know if you have it?

Well, first off, you'll be having a fever of about 105°F in the late afternoon or evenings, fatigue and of course a sore throat and swollen lymph glands. Not everyone has all or any of these symptoms; some may just have fatigue or fever. These

symptoms usually arrive 4-8 weeks after exposure to the virus.

Treatment: Usually a blood test is taken to determine if you have the virus. This is also done to make sure that this isn't confused with Strep throat. The usual prescription for those with Mono is to rest and drink plenty of fluids.

References:

1. Ebell, M., Smith, M., Barry, H., (2000) Does this Patient Have Strep Throat? Journal of the American Medical Association, 284 (22).
2. [Http://www.mediresource.net](http://www.mediresource.net) . Accessed February 11, 2002.
3. Pichichero ME. (1999) Cost-effective Management of Sore Throat: It Depends on the Perspective. Arch Pediatric Adolescent Medicine, 153:672-680.