The Apple Press

Caring For Tomorrow Today

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About the *Apple Press*

The newsletter of Preventive Medicine Group, the private medical practice of

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The practice emphasizes family care, healthy eating and nutritional supplements, healthy lifestyles, anti-aging medicine, energy medicine, acupuncture and preventive medicine. This complementary and alternative medical practice also offers non-surgical therapy as an option in the treatment of cardiovascular disease.

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Preventive Medicine Group
30 Years of Caring For Tomorrow Today
1976—2006

YOUR IMMUNE SYSTEM

This article is in response to requests for the subject. We have tried to simplify the discussion as much as possible, but due to the complexity of the subject, some people may find this article more technical than usual.

The immune system is the body's defense system working in a coordinated manner to attack organisms and substances invading the body and causing disease. The immune system is a network of cells, tissues, and organs. The cells that are part of this defense system are white blood cells, or leukocytes. Leukocytes are produced or stored throughout the body, including the thymus, spleen, and bone marrow. There are also clumps of lymphoid tissue throughout the body, primarily the lymph nodes, that house the leukocytes. Leukocytes circulate throughout the body between the organs and nodes by means of the lymphatic vessels as well as the blood vessels.

There are two basic types of leukocytes: phagocytes that chew up invading organisms and lymphocytes that allow the body to remember and recognize previous invaders. The most common phagocyte is the neutrophil which primarily fights bacteria. Other types of phagocytes respond to other specific invaders. Lymphocytes start out in the bone marrow and either stay there and mature into B cells, or leave for the thymus gland where they mature into T cells. B lymphocytes are like the body's military intelligence system, seeking targets and sending defenses to lock onto them. T cells are like soldiers destroying invaders identified by intelligence.

A foreign substance that invades the body is called an antigen. When an antigen is detected, several types of cells respond in a coordinated reaction, triggering B lymphocytes to produce antibodies. Antibodies are specialized proteins that lock onto specific antigens fitting together like a lock and key. Once the B lymphocytes produce antibodies, these antibodies continue to exist. If the same antigen is presented to the immune system again, the antibodies are already there to do their job. If someone gets sick with chickenpox, for example, that person typically doesn't get it again. Although antibodies can recognize an antigen and lock onto it, they are not capable of destroying it. That is the job of T cells. Some T cells are actually called "killer cells." T cells are also involved in signaling other cells, like phagocytes, to do their jobs. Antibodies neutralize toxins produced by different organisms and also activate proteins that assist in killing bacteria, viruses or infected cells. All these specialized cells and parts of the immune system provide the body with immunity.

Humans have three types of immunity: innate, adaptive, and

Your Immune System (cont'd.)

passive. Everyone is born with innate, or natural, immunity. Many germs affecting other species don't harm us. For example, viruses that cause leukemia in cats or distemper in dogs don't affect humans. Innate immunity works both ways. Some viruses that make humans ill don't make cats or dogs sick. Innate immunity also includes external barriers of the body such as the skin and mucous membranes lining the nose, throat and gastrointestinal tract. This is our first line of defense. If this outer defensive wall is broken, as in a cut, the skin attempts to heal the break quickly and special immune cells on the skin attack invading germs. Adaptive immunity develops throughout our life. It involves the lymphocytes and develops as children and adults are exposed to diseases or are vaccinated. Passive immunity is "borrowed" from another source and lasts for a short time. For example, antibodies in a mother's breast milk provide an infant with temporary immunity to diseases that the mother has been exposed to protecting the infant against infection during the early years. Everyone's immune system is different. Some people seem to never get infections while others seem to be sick all the time. As we age, we become immune to more germs as the immune system comes into contact with more of them. That's why adults and teens get fewer colds than children. Older bodies have learned to recognize and immediately attack many of the viruses that cause colds.

Disorders of the immune system can be broken down into four main categories: immunodeficiency, autoimmune disorders, allergic disorders, and cancers. Immunodeficiencies occur when a part of the immune system is not present or is not working properly. Immuno-deficiencies can affect B lymphocytes, T lymphocytes or phagocytes. Sometimes a person is born with an immunodeficiency, called primary immunodeficiency. IgA deficiency is the most common primary immunodeficiency disorder. IgA is an immunoglobulin that is found primarily in the saliva and other body fluids. People with IgA deficiency tend to have allergies or get more colds and other respiratory infections, but the condition is usually not severe. Other less common primary immunodeficiency disorders can be more serious. Acquired immunodeficiencies usually develop after a person has an infection or disease. They can also be the result of malnutrition, burns, drug use or other medical problems. There are several medicines that suppress the immune system. Chemotherapy treatment for cancer, for example, not only attacks cancer cells, but other fast-growing, healthy cells, including those in bone marrow and other parts of the immune system. In addition, people with autoimmune disorders or organ transplants may need to take immunosuppressant medications. These medicines can also reduce the immune system's ability to fight infections and can cause secondary immunodeficiency.

In autoimmune disorders, the immune system mistakenly attacks the body's healthy organs and tissues as though they were foreign invaders. Lupus is a chronic disease marked by muscle and joint pain and inflammation. The abnormal immune response may also involve attacks on the kidneys and other organs. In juvenile rheumatoid arthritis, the body's immune system acts as though certain body parts, such as the joints of the knee, hand, and foot, are foreign tissue. Scleroderma is a chronic autoimmune disease that can lead to inflammation and damage of the skin, joints, and internal organs.

Allergic disorders occur when the immune system overreacts to environmental exposure to antigens. The provoking substances are called allergens. The immune response can cause swelling, watery eyes, sneezing, and even life-threatening anaphylaxis. Antihistamine medications are used conventionally. Asthma frequently involves an allergic response. If the lungs are oversensitive to allergens such as pollen, molds, animal dander or dust mites, it can trigger breathing tubes in the lungs to narrow leading to reduced airflow. Eczema, or atopic dermatitis, is a scaly, itchy rash not necessarily caused by an allergic reaction, but occurring more often in people who have allergies, hay fever, asthma or family history of these. Common conditions referred to as allergies include environmental allergies, seasonal allergies, drug allergies, food allergies and allergies to toxins.

Cancer occurs when abnormal cells multiply because the immune system cannot identify them as abnormal or cannot eliminate them.

Optimal dietary intake, exercise, rest, stress management, heavy metal detoxification, hormonal balance, and avoidance of tobacco, alcohol abuse and other risky behavior help the immune system. When immune disorders develop, there are a number of natural ways to boost the immune system and heal chronic disease, or at the very least, help a person be in the best condition they can be. The physicians at Preventive Medicine Group make immune enhancement the cornerstone of their approach toward health maintenance, disease prevention and alternative therapy for existing health problems. For further information on how Preventive Medicine Group can help you enhance your immunity, call (440) 835-0104.

The Book Worm

The Top 100 Immunity Boosters: 100 Recipes to Keep Your Immune System Fighting Fit by Charlotte Haigh will keep you nourished as you read **Activate Your Immune System** by Leonid Ber, M.D. and Karolyn A. Gazella along with two books written by Ellen W. Cutler, D.C. entitled **Winning the War against Immune Disorders & Allergies** and **Winning the War against Asthma & Allergies.** Dr. Andrew Weil's book **Spontaneous Healing** also will help you discover and enhance your body's natural ability to maintain and heal itself. The best medicine works hand in hand with the body's natural defenses to manage illness rather than combat germs or suppress symptoms.

Tip Top Tips

Arsenic, a known carcinogen linked to neurological, cardiovascular and immune problems, has been found in supermarket and fast food chicken according to the Institute of Agriculture and Trade Policy. Commercially raised chickens are commonly fed feed laced with arsenic in an attempt to improve feed efficiency, improve pigmentation, increase the rate of weight gain and reduce incidence of intestinal parasitic infection. Of the chicken samples tested in the research, 55% of supermarket and 100% of fast food chicken contained some arsenic. The levels varied with many samples containing above what the EPA allows in drinking water. If you enjoy eating chicken, purchase chicken that states on the label "vegetarian feed" or, better yet, "organic." Avoid fast food chicken.

The Wise Old Apple

I walk down a street and there is a deep hole in the sidewalk. I fall in. I am lost and helpless. It takes forever to find a way out. Later, I walk down the same street. There is a deep hole in the sidewalk. I pretend I don't see it. I fall in again. I can't believe I am in the same place, again! It isn't my fault. It still takes a long time to get out. I walk down the same street again and there is the same deep hole. I see it there. I still fall in. It's a habit. My eyes are open. I know where I am. It is my fault. I get out immediately. Once again, I walk down the same street. There is a deep hole in the sidewalk. I walk around it. Next time, I walk down another street. (Portia Nelson)

The Recipe Corner

Brussels sprouts are among the highest antioxidant containing vegetables. Tomatoes are high in vitamin C. Mushrooms contain antibacterial substances. All of this is very good for immunity!

BRUSSELS SPROUTS KABOBS

1 pint brussels sprouts
1 pint cherry tomatoes
1/2 pound whole mushrooms
2 T. low sodium tamari or soy sauce
2 T. chopped fresh parsley
skewers
2 T. extra virgin olive oil
2 T. lemon juice

Steam brussels sprouts until tender when pierced with tip of a knife, about 7 minutes. Cool. To make marinade, combine soy sauce, oil, lemon juice and parsley. Mix well. Add tomatoes and mushrooms and marinate at room temperature for 30 minutes, stirring occasionally. Alternate sprouts, tomatoes and mushrooms on skewers, leaving a small space between each one. Broil kabobs for 5 minutes, turning once, and basting with marinade. Makes 4 servings.

From: RODALE'S BASIC NATURAL FOODS COOKBOOK

Free Lecture Series Free Lecture Series

"Could Your House Be Making You Sick?"
Learn how to have a toxic-free house!
Nosson Goldfarb, M.D. 6:30 p.m. Wednesday, September 20, 2006

"Shifting the Cancer Paradigm: Must We Kill to 'Cure'?"
An alternative approach to cancer therapy!
James P. Frackelton, M.D. 6:30 p.m. Tuesday, September 26, 2006

"Pain-free Fibromyalgia? It's Possible!"
Whatever aches and pains you have, this talk is for you!
Stan Gardner, M.D. 6:30 p.m. Tuesday, October 3, 2006

"Cosmetic Acupuncture — Get a More Youthful Appearance!"
A non-surgical approach to face lifts and tummy toning!
Laura DeVincentis, N.D., R.Ac. 6:30 p.m. Thursday, Oct 12, 2006

"Men — Live Longer! Feel Better! Reinvigorate Your Life!"
Men's health issues! (Women invited, too!)
Nosson Goldfarb, M.D. 6:30 p.m. Tuesday, October 24, 2006

"Natural Bio-identical Hormone Replacement"
The alternative approach to conventional synthetic hormones!
Stan Gardner, M.D. 6:30 p.m. Tuesday, November 7, 2006

"Acupuncture Can Help YOU!
Learn more about this ancient therapy!
Laura DeVincentis, N.D., R.Ac. 6:30 p.m. Thursday, Nov 16, 2006

"Preventive Medicine Questions & Answers"
You bring the questions and the doctor has the answers in this open forum!
Derrick Lonsdale, M.D. 6:30 p.m. Tuesday, November 28, 2006

Point Five Office Building Lower Level Auditorium
24601 Center Ridge Road in Westlake. **(Directions on reverse)**

Call (440) 835-0104 for reservations

On occasion, lectures may be rescheduled due to weather or emergency. All advance registrants will be notified in such event.