

# How Your Body Heals Itself

## *Understanding the extraordinary power of your immune system!*

The more you know about how your body works, the better able you are to make the choices necessary to enhance both the quantity and quality of your life!

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Hygiene is defined in the dictionary as the science of health and its preservation. But what does that really mean?

Science, the dictionary tells us, is "the systematic observation of natural phenomena for the purpose of discovering laws governing those phenomena." Put more simply, science is the process we use to figure out how things work. Health is defined as "a state of optimal physical, mental, and social well-being."

With these definitions in mind, it is easy to see that Hygiene is neither a dietary system, a therapeutic system, nor a religious or belief system. Hygiene is the science of health. It encompasses a broad body of knowledge about the natural laws that determine health and numerous techniques that enable you to use this information to maximize your health potential.

### **Knowledge is power**

The more you learn about how your body works, the better prepared you will be to make the choices necessary to enhance both the quantity (longevity) and quality of your life.

## **"START"**

### **Self Treatment Arrest Reversal Therapy**

The optimum state of function that we call health is spontaneously generated by the human organism when it is provided with the requirements of health. The requirements of health can be conveniently classified into four general categories: diet—a plant-based diet of whole natural foods that meets your individual nutritional needs; environment—getting fresh air, pure water, and appropriate sunshine, and avoiding environmental stressors such as air and water pollution, and excess exposure to dust, pollen, chemicals, and noise; activity—engaging in regular aerobic exercise and getting adequate rest and sleep; and psychology—engaging in productive activity and developing the interpersonal social skills necessary for a successful life.

When the requirements of health are appropriately provided, the self-healing mechanisms of the body attempt to restore and/or optimize health. Your body's ability to do this is only limited by your inherent constitution (genetics) and the amount of use and abuse that has taken place.

Hygienic physicians have always emphasized the concept that health and disease are not antagonists. Disease processes such as diarrhea, fever, and inflammation are not only natural, but are necessary attempts by the body to regain optimum health. Attempts to suppress these adaptive and eliminative processes with drugs and other invasive treatment may create problems by interfering with the body's self-healing mechanisms.

### **Natural immunity**

It is important that you know how extraordinarily capable and complex your immune system is.

Your body is constantly exposed to chemicals, toxins, pollutants, and other stressors. In addition, simple organisms such as viruses, bacteria, fungi, and parasites are capable (under certain circumstances) of invading the human body and using it as a source of nourishment. Fortunately, the healthy human body has defenses against invasion by these organisms. These defenses comprise the immune system.

The immune system can be thought of as having two divisions-the general or non-specific immune system and the adaptive or specific immune system.

## Your non-specific immune system

First let's take a look at the non-specific division of the immune system. The largest organ in the human body is not the heart or liver; it is the skin. The skin and its components form a very important part of the non-specific immune system.

Most potentially pathogenic organisms and agents are prevented from interfering with normal function because of the barrier that the skin creates. The openings into the body, such as the mouth and nose, however, are not covered with skin, but with mucus membrane. This membrane can secrete various substances and is usually moist. In these moist secretions are other defense mechanisms, including chemicals such as lysozyme and C reactive protein, which can kill invading bacteria.

Mucus itself can trap invading organisms, and cilia (little hairlike projections in the lungs, bronchi, and throat) can push those invaders back out of the body as long as they are working properly. It has been shown that in tobacco and marijuana smokers the cilia become paralyzed and destroyed. This is one of the reasons that smokers have such an increased incidence of respiratory and other infections.

The acid in the stomach, vagina, and other organs also can act as part of the non-specific immune system by creating an environment in which potentially invasive organisms cannot survive.

## Look who's coming for dinner

The next components of the non-specific division of the immune system are the phagocytic or "cell-eating" cells. These phagocytes can engulf and destroy most invading organisms. Phagocytes are a type of white blood cell found in the bloodstream as well as in various organs such as the lungs, liver, and intestinal tract.

People with malfunctioning phagocytes are subject to recurrent infections. In rare cases, this malfunctioning is a genetic defect. More commonly, it arises from poor health practices which overwhelm the ability of the phagocyte to act. Smoking, for example, in addition to paralyzing cilia, can kill macrophages, the phagocytes that live in the lungs.

## Natural born killers

Another type of white blood cell, called the "natural killer" cell, can recognize cells that have been invaded by viruses. The killer cells can bind to these infected cells and destroy them. Cells that are infected by viruses help the killer cells by producing chemicals called interferons, which activate the killer cells.

The body also is capable of producing special proteins during an infection. These proteins coat the invading organisms, especially certain bacteria, and make it easier for the phagocytes to destroy them. But this only works if the invading organisms have some general chemical markers that the non-specific division of the immune system can identify.

## Some like it hot

When an infection or injury takes place, the body produces a reaction called inflammation. Inflammation serves to direct the elements of the immune system to the site of infection or injury.

Inflammation consists of three parts-increased blood supply to the infected area; increased permeability of the small blood vessels permitting large molecules to leave the bloodstream and reach the infection; and increased migration of phagocytes toward the site of infection. Inflammation causes the infected area to look red, become swollen, and feel hot and painful.

The non-specific division of the immune system, including skin, mucus, cilia and phagocyte can take care of many infections and potential infections. Problems arise when phagocytes lack the ability to identify things that bypass the non-specific division of the immune system's defenses.

## Your specific immune system

Fortunately, the immune system has another division called the adaptive, or specific, division. Unlike the non-specific division, the specific division of the immune system is capable of producing particles called antibodies.

These tiny antibodies have two ends. One is a receptor that can recognize a specific organism or substance. The other end is a marker that fits in the general receptors of the phagocytes. When an antibody attaches its specific end to an invading organism or foreign substance, it tags the invader in such a way that the phagocytes of the non-specific division of the immune system can recognize and destroy it.

These antibodies made by the specific division of the immune system are produced by white blood cells called B lymphocytes. B lymphocytes come in thousands of varieties, each capable of recognizing one specific marker or antigen.

The number of lymphocytes that can recognize any particular marker or antigen is very small. When the right B lymphocyte finds the antigen of the invader, it binds to it. This stimulates the lymphocyte to quickly reproduce many more B lymphocytes of exactly the same type.

With the help of a complicated chemical signaling system, the new B cells are ordered to start pouring out antibodies. The antibodies bind to the invaders, and the phagocytes destroy them. Some of the new B cells, instead of producing antibodies, become memory cells. After the invasion is resolved, these memory cells persist in the body. If that particular invader should ever happen to show up again, the body will be able to destroy it quickly.

## Mother's little helpers

In addition to the B lymphocytes that produce antibodies, there is another important kind of lymphocyte cell-T lymphocytes or T cells. T cells come in several varieties-helper, killer, suppressor, memory and others. Helper T cells, like B cells are very specific, having specific

receptors for specific invaders. It is the helper T cells that are in charge of the complicated chemical signaling system that tells the B cells what to do and initiates the production of killer T cells.

## Love the one you're with

We are fortunate that we possess such a complex and efficient immune system that functions at its highest level when we conscientiously secure the requirements of health.

Your health is very precious. Take the steps necessary to protect and preserve it. Remember, you are the only you you've got.

For more information visit [www.healthpromoting.com](http://www.healthpromoting.com)

### WARNING:

The Information in these articles is not intended to replace medical advice or treatment. Questions about symptoms, specific dietary needs and medications, general or specific, should be discussed with your physician. The information in this article is for informational purposes only, and is not medical advice or a substitute for a physician's consultation and/or examination.

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