

Your Protection is Within

During an outbreak of an infectious disease, including serious epidemics, some people get sick and some do not. Of those who do get symptoms, some get a little sick, some get very sick, and some die. **Yet, they all share the same environment and are exposed to the same microbes.**

What is the difference?

The difference resides in the person's own immune system. Experience tells us that the individuals who suffer the most and account for virtually *all* fatalities during an epidemic are the elderly and others who have a compromised immune system. In other words, your real protection is within. The stronger you are on the inside, the less concerned you need be about avoiding exposure to the external pathogens.

Granted, some microbes are nastier than others. Some are more virulent, which means that they spread more quickly. Others have higher morbidity, which means they are a greater tendency to incapacitate or kill the host. However, with repeated exposure, the immune learns how to neutralize all of them with ease and grace. It has to because, microbes are everywhere and repeated exposure is inevitable.

Microbes are Ubiquitous

When you develop symptoms of a cold or flu, chances are that you did not suddenly "catch" a virus. *The virus or bacteria in question were probably already in your immediate vicinity – or even inside you* – along with a multitude of other potential pathogens. By the time you get sick, you probably already had multiple exposures of various types of pathogens over a period of days, weeks, or months, and finally developed symptoms when the immune system was sufficiently stressed. For example, the herpes virus is a common resident in many humans, becoming problematic only if the body is compromised. Likewise, an epidemic does not come to end because we "got rid of the virus." The virus is still all around! The epidemic ends when a large enough percentage of the population is exposed and becomes immune.

The point here is that external measures for preventing exposure have value only to the extent that we recognize their limitations. Specifically, for airborne pathogens, external measures do not prevent exposure to the microbe in question, they simply *delay it*.

For practical purposes, your own personal exposure to the pathogen is not a matter of *IF*, it's matter of *WHEN*. For the population as a whole, any epidemiologist knows that external measures do not stop the spread of a microbe, they simply slow it down. Once we understand this, we can use external measures intelligently and effectively, most notably to protect those who are immune-compromised. However, for the general population, if we rely too heavily on external measures, they do not make us more safe, they just make us more scared.

The Source of Serenity and Safety

As St. Francis of Assisi once pointed out, serenity comes from changing things that we can change and letting go of the rest. In this case, safety from infectious diseases comes from optimizing the potency of our immune system – this is what we have the power to change! What we cannot change is exposure to the ever-present microbes all around us.

In other words, exposure to local pathogens is a given. Eventually, everyone is exposed (multiple times) to local microbes. What we *can* control is how well the body neutralizes them. We have the power to “tune-up” the immune system so as to greatly enhance its capacity to neutralize the pathogens that routinely enter the body. When we fully appreciate just how much disease-fighting power we have within us, we need no longer fear exposure to microbes from casual contact.

In addition to its capacity to neutralize pathogens, a well-tuned immune system is also less likely to overreact and trigger a cascade of events, such as excessive inflammation, which commonly show up as allergies and various autoimmune diseases. In fact, even with infectious diseases, ***the damage is often not done by the microbe itself, but rather by a weakened or overwhelmed immune system which overreacts and harms the body's own tissues.***

The latter point is critically important because it leads us right to the three strategies we can use to protect ourselves from potentially pathogenic microbes. These three strategies are applicable whether we are dealing with the ever-present microbes within us or around us, or novel microbes to which we have not yet been exposed. Here are the three strategies:

1. Tune-up the immune system.
2. During stressful times, such as flu season, we can use safe and effective products that directly inhibit the proliferation of microbes in the body, thus giving the immune system more time to marshal its forces.
3. A person who does get sick (especially those with a compromised immune system) may use products that reduce the cascade of inflammatory events which could otherwise produce suffering or even death.

Below are some ways of optimizing the immune system, as well as directly inhibiting microbial growth and inflammation. All of them are safe, effective, and readily available.

Keep your Gut Clean and Healthy

- A big chunk of our immunity is rooted in the digestive system. Therefore, keeping the gut clean and healthy might be the single most powerful way of optimizing the immune system.
- The other tips given below are effective only to the extent that the gut is clean and healthy.

Fermented Foods and Probiotics

- A big chunk of our immunity comes from the gut, with gut bacteria playing a major role.
- Eating fermented foods can help to rapidly create the intestinal environment that supports a strong and well-modulated immune system.
- A probiotic supplement can be helpful, especially after taking antibiotics.

Colorful Fruits and Vegetables

- These foods tend to reduce inflammation and support the immune system.
- For example, some studies suggest that regular consumption of blueberries can double the number of natural killer cells, reduce oxidative stress, and increase the production of anti-inflammatory substances by our cells.

Healthy Fats

- Omega 3 oils tend to be anti-inflammatory. Omega 6 oils tend to be proinflammatory.
- Good sources of omega 3 oils are flax, chia seeds, hemp seeds, walnuts, and cold-water fish.
- Foods high in omega 6 oils are most nuts and seeds and most vegetable oils.
- Avoid partially hydrogenated vegetable oils and avoid overconsumption of saturated fat. These fats tend to inhibit some immune system cells.

Avoid Refined Carbohydrates

- Refined carbs consist mostly of white sugar and white flour.
- Like the wrong kind of fats, refined carbs tend to promote inflammation and inhibit some immune system cells.
- Products made with refined carbs include white bread and pasta, cookies, cakes, and candies.

Vitamin C

- Vitamin C is vital for the immune system.
- Cooking destroys vitamin C; therefore, it is best obtained from raw fruits and vegetables.
- When whole-food sources of vitamin C are limited, supplementation can be beneficial.

Vitamin D

- Vitamin D, like vitamin C, is vital for the immune system.
- Vitamin D is best obtained from sunlight.
- Supplemental vitamin D can be helpful during stressful times or when sunlight is limited.

Beta-carotene

- Beta-carotene has been shown to increase the numbers and activity of immune cells.
- It has also been shown to enhance cancer-fighting immune functions.
- Beta-carotene and other beneficial carotenoids are found in colorful fruits and vegetables such a papaya, kale, and carrots.

Elderberry Extract

- Elderberry extract potentiates the immune system against viruses and bacteria.
- Elderberry extract is often sold as a syrup which makes it ideal for throat infections.
- Elderberry extract is readily available in health food stores. It is often found in combination with other immune system promoting agents.

Olive Leaf Extract

- Olive leaf extract shows anticancer, antifungal, antibacterial, and antiviral properties.
- Olive leaf extract is usually found in capsules.
- Olive leaf extract is also sold in liquid form which makes it ideal for oral and throat care as a prevention or treatment during flu season.

Oregano Oil

- Oregano oil is a powerful all-around antimicrobial agent.
- It is very effective against viruses, bacteria, fungi and worms.
- It boosts the immune system.
- It shows anti-inflammatory and antioxidant activities.
- Oregano oil is readily available in health food stores.

Aloe Vera

- Among its many virtues, is anti-inflammatory, boosts the immune system, and reduces allergic reactions.
- Aloe also shows direct antifungal, antibacterial, and antiviral activity.
- Some studies also indicate that aloe might have anti-cancer properties.

Honey and Cinnamon

- Honey and cinnamon increase the activity of some immune system cells.
- Honey and cinnamon directly inhibit the growth of bacteria and viruses.

Rest and Exercise

- The right balance of rest and exercise can go a long way in optimizing the immune system.
- Exercise is important because the body is simply not designed to be sedentary. All aspects of the body are optimized with regular exercise, including the immune system.
- Rest is important because it tones down the sympathetic system and activates the parasympathetic system, thus allowing the body to recharge and regenerate.

Exercise the Immune System

- As with muscles, the immune system is governed by the principle of “use it or lose it.”
- The immune system becomes strong against pathogens through regular exposure to same.
- In order for the immune system to do its job, it must have the opportunity to get acquainted with local microbes. Granted, hygienic practices have their rightful place. Likewise, social isolation might be appropriate for some individuals as a temporary measure during times of increased vulnerability, however overuse of these external measures can actually make the person more vulnerable, as well as having other unwanted consequences, such becomes overly fearful and reclusive.

Cultivate Inner Peace

- Stress, especially in the form of chronic depression, fear, and anxiety can insidiously decimate the immune system.
- A simple antidote to depression is physical exercise in the great outdoors and loving communion with friends.
- A simple antidote to fear is to breathe deeply, go within, and remember the big picture.

If You Do Get Sick, Give Thanks!

- Use the illness as an opportunity to correct the internal issues that made you vulnerable in the first place.
- In other words, do not just settle for eliminating symptoms and becoming functional enough to get back to work. Go the extra mile! Be diligent and follow through with the application of the strategies described above, so that you are healthier in body and mind than you were prior to the health challenge.

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