BOOST YOUR IMMUNITY

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Although you might hear the word "immunity" frequently, some of its specifics might have escaped you. Regarding humans, immunity describes the ability of our bodies to react and protect against outside substances, bacteria, parasites, or other pathogens. Contact with chemicals and proteins such as are found in food or environmental cleaning solutions, etc. can create an immune response. This means that when one of these allergens enters the body or touches the skin, an antibody called "immunoglobulin E (IgE) reacts specifically to neutralize or fight these off.

After an infection with bacteria or a virus, our bodies can gain immune status to these sometimes for a lifetime or sometimes for a shorter period. For example, if you have a tetanus toxoid shot as a child (remember DPT shots?), this can confer immunity for a long time. However, if you have a wound which is deep and may be dirty, a "booster" shot of tetanus toxoid causes your body to have an "anamnestic" response which builds your antibodies much faster and prevents you from acquiring tetanus or "lockjaw." The serum proteins including IgE and IgG are produced by proteins in your body which come from the food that you eat. Obviously, you have to keep your protein intake up to an adequate level to maintain this. Most people in this country do so except vegans or some vegetarians who don't get enough complete protein in their diet.

In addition to the protein specific immunoglobins which respond to antigens, there are other mechanisms in your body which help confer immunity to you. Not only do these aid the immunoglobins, but the immunoglobins specifically help tell them what to do. We have white blood cells which include macrophages (means "big eaters") and specialized lymphocytes called T-cells. In addition to the T-cells, there is a special type of T-cell known as a "killer lymphocyte." We also have cytokines which are chemical fighters in an area where the antigen-antibody response is taking place. These cytokines move to an infection site and surround the invaders. They dilate the blood vessels, create more blood flow, and enable more white cells to come to "battle." This could be in the skin where there is cellulitis, in the lungs where there is pneumonia, or in the brain where there is an abscess. In addition to these immune system helpers, the group of white cells called B-cells produce antibodies which act like missiles seeking out and attaching to specific germs or antibodies. The immune system also possesses memories of "battles" past and can recognize an antigen such as tetanus toxoid so that it can react to that and protect the body from that particular antigen for many years.

The question would be – Does everyone have the same immune system, and is everyone's immune system as strong as another person? The answer is that everybody has the same mechanisms for their immune system, but because of diet, stress, starvation, prolonged sickness, genetic factors, or other reasons one person's immunity may not be as good as another's. The other question is whether or not you can change your immune status and make it better. The answer is, definitely yes!

Given the fact that we can change our immune system, what can we do on a daily basis to improve it as much as possible? All of us want to avoid infections, cancer, immune disorders, and food and chemical allergies to the greatest extent possible. The answer lies in taking the best care possible of your health, paying attention in terms of stress elimination, exercising frequently, and taking in a healthy diet. One of the first supplements to think about is Vitamin D. We do know that as the winter season comes on, there is a higher incidence of respiratory illness and flu syndromes. This is at a time when the sun is below the equator so that we get almost no ultraviolet light, and therefore no stimulation for Vitamin D production. Because of this, we should either supplement with Vitamin D, go to Florida for the winter, go to a place which has ultraviolet artificial sunlight, or simply take high levels of Vitamin D3. Any or all of these will confer more immunity and resistance to infection for us. In the spring, summer, and fall, most of us get enough ultraviolet light from the sun to produce at least a nearly adequate amount of Vitamin D.

Additionally, you can follow a diet that includes lemons, oranges or vinegar on a daily basis to improve the body's acid-alkali balance. This will bring the body's internal "climate" to a pH that supports healthy bacteria instead of the viruses and harmful bacteria which thrive in a more acidic environment. In addition, there are herbal supplements and green foods that are immune stimulating. Fresh herbs and whole food supplements are always preferable over packaged herbs and supplements, but all of these work to help your immune system. Eliminating stress, getting a good night's sleep, and eliminating high carbohydrates and high-glycemic foods will help maintain a normal blood sugar level while the decreased insulin secretion will also boost your immune system. Drinking enough water to stay hydrated and eliminating white sugar and most wheat products will also help. Refined flour can raise your blood glucose faster than white table sugar does, but both of them are bad for you. If you can eliminate most foods made with wheat and flour, you can definitely improve your immune situation. Additionally, eating raw fruits and vegetables for their antioxidants and vitamins improves your immune system. Eating an adequate amount of complete protein, eating beef at least once a week, and concentrating on dividing your daily meals and snacks into the three food groups of carbohydrate, protein and fat also tends to improve your system. Vitamins C and E, bioflavenoids, zinc, garlic extract, selenium, omega-3 fatty acids, and carotenoids will help as well.

Again, habits that weaken the immune system include overdoing on sugar, alcohol, and foods which may divert your immune system to an allergic reaction. Too much bad fat can lead to a depressed immune system as it can affect the ability of white blood cells to multiply, produce antibodies, and move to the site of infection. Hydrogenated fat which is found in just about every packaged food can decrease your immune response. Interestingly, in the presence of an adequate fiber and good fat diet, yogurt can improve the number of "good" bacteria in your GI tract which can help your immune status greatly.

In general, we can make ourselves healthier or unhealthier and more or less immune. The choice is ours. Just like your car demands multiple types of oils and fuels, your body does the same. Learn and remember information about how to improve your immune system and what is working against yours, and you can come out ahead. You can have a

winter without colds or other illnesses if you take the best care of yourself. You will also be stronger in terms of fighting off other conditions such as cancer and autoimmune diseases.

Have a healthy and happy New Year, and eat well!