



1 E. Broad St.
Hazleton, Pa. 18201
570-454-2476



7 N. Wyoming St.
Hazleton, Pa. 18201
570-454-2958

How the Immune System is Affected by Drug-Induced Nutrient Depletion

As of 2010, nine out of ten Americans over the age of 60 were on at least one prescription drug. Even more startling is that in the same year 40% of elderly Americans had taken at least five different prescription drugs in the last month.

With the myriad of prescription drugs that are being taken, especially in combination, there is a definite impact on the overall function of the body. With the many systemic side effects that are present, the immune system is also affected. It is well documented that certain medications deplete very specific nutrients within the body. This depletion is not without consequence, as our body needs the nutrients in adequate levels to effectively operate our body systems. As we age, infection and the ability of our body to have an appropriate immune response to potential pathogens is of the utmost importance.

The main nutrients that are affected by the most common prescription medications in the elderly include: CoQ10, vitamin E, Zinc, vitamin C, and probiotics. Some medicines affect the levels of one or several of the nutrients and each of the nutrients has a very specific function in the support of the immune system.

CoQ10 is depleted by statin medications. Adequate CoQ10 has been shown to decrease pro-inflammatory cytokines shown to depress healthy immune response. Statin medications also have been shown to decrease the levels of vitamin E. Vitamin E has been shown to enhance the proliferation of T-cells. Blood pressure medications are associated with the depletion of zinc, a nutrient that is associated with a healthy immune system. Zinc can also be depleted by antibiotics and when women are receiving estrogen replacement therapy. Aspirin has been shown to decrease levels of vitamin C and is taken daily as a preventative measure by many elderly patients; vitamin C supports neutrophil activity. Probiotics in the digestive tract have been shown in many studies to be very effective at supporting immune health. Antibiotics wipe out infection as well as healthy bacteria. It would be best to replace the healthy probiotic bacteria following a course of antibiotics.

Healthy and appropriate levels of all of these nutrients, and many others, are what support a healthy and appropriate immune system. If you are taking any of the previously mentioned medications, or any medication, be sure to look at the possibility of nutrient depletions and how they may be affecting not only your immune system, but your body's optimal function as a whole.

Contact Hazle Drugs Certified Clinical Nutritionist, Bill Spear, R.Ph, to discuss any nutrient depletions that may be caused by some of the medications that you are taking.

Bill can also provide you with a nutritional interpretation that can lead to the recommendation of specific diets and nutrients to re-establish biochemical balance to promote optimal immune health and to prevent nutrition-related diseases.

***Bill Spear, R.Ph., CCN is a Compounding Pharmacist and Certified Clinical Nutritionist. He is available for personal nutritional consultations at Hazle Drugs, 1 E. Broad St., Hazleton, Pa. 18201, 570-454-2476 / 800-439-2026
www.hazleldrugs.com***