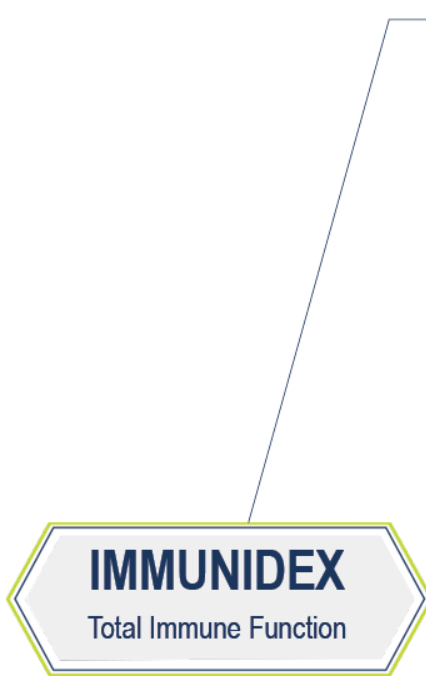


Supplemental Information

Cellular Function = Performance, Not Just Potential



● PHYSIOLOGICAL FUNCTION

What Does the Immunidex Measure?

A patient's Immunidex score is one measurement to evaluate a person's cell-mediated immune system performance. Specifically, it measures T-cell lymphocyte proliferation. Since immune function is a systemic measure of general health, a higher Immunidex score is generally desired since it means a person can respond efficiently not only to exogenous threats such as pathogens or allergens, but also to endogenous threats like tumors. The immune system, comprised of both cell mediated (Th1) and humoral (Th2) components, when balanced and performing optimally, affords us critical protection and promotes health and wellness.

How is the Immunidex Performed?

A patient's lymphocytes are isolated from whole blood and introduced to a protein that stimulates growth. The protein mitogen used to trigger mitosis, or cell division, is PHA (phytohemagglutinin), which stimulates T-lymphocytes to proliferate. The proliferative response is measured by the incorporation of radioactive thymidine into newly synthesized DNA. Your patient's response is compared to responses of a reference population and results are reported to you as an Immunidex score.

What Affects the Immunidex Result?

Micronutrient deficiencies will undermine a person's immune function, and thus lower the Immunidex. Since the highly complex immune system is dependent on the intracellular availability of vitamins, minerals and antioxidants, correcting specific micronutrient deficiencies typically raises the Immunidex and contributes to tangible clinical benefits, such as reduced infections and may assist in achieving Th1/Th2 balance.

How Does the Immunidex Correlate with Antioxidant Function?

In general, the higher the antioxidant score (SpectroX®), the higher the Immunidex score. Antioxidant function plays an important role in promoting optimal T-cell (lymphocyte) function. It is important to find out if a patient has deficiencies in specific antioxidant nutrients so they can supplement wisely. But it is also important to measure a total antioxidant function because the metabolic pathways in which antioxidants are involved are highly complex, sometimes redundant and often overlapping. Research confirms that taking excess antioxidants that are not needed (i.e. where no deficiency exists) can actually cause them to become pro-oxidants and decrease antioxidant function.

How is Immunidex Related to Aging?

As we age, our immune function typically decreases as seen in the figure below. Although many factors are involved in this complicated process of decline, the Immunidex is one of many relevant aging biomarkers since age diminishes the ability of a person's lymphocytes to respond to challenges. The effects of both good and poor antioxidant function on the Immunidex is shown and emphasizes the importance of testing for antioxidant function (SpectroX®) and individual antioxidant deficiencies.

How Do You Order Immunidex?

The Immunidex is part of SpectraCell's Micronutrient Testing panel. There is no additional charge for this calculated test result. Ordering instructions are the same – same kit, same blood draw instructions.