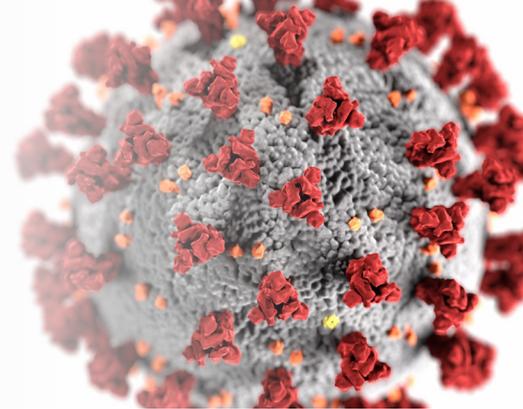


MICRONUTRIENTS IN THE FIGHT AGAINST COVID-19



Functional Exhaustion of Antiviral Lymphocytes in COVID-19 Patients

This COVID-19 pandemic is a harsh reminder that a person's immune function is a key factor in their ability to recover from an illness like this. SpectraCell measures the immune function on every single MNT (micronutrient test) it performs - it is actually the very first step in our nutrient test. Although an often-underrated aspect of the MNT, SpectraCell has been measuring immune function (specifically, via lymphocyte proliferation, which we call Immunidex) for over 25 years.

How is SpectraCell's Micronutrient Test relevant now more than ever?

New research suggests cytotoxic T-lymphocytes (CTLs) and natural killer (NK) cells are necessary to respond to viral infections and that lymphocyte dysfunction is correlated with disease progression.¹

In a recently published study where clinical data was collected in confirmed COVID-19 hospitalized patients, it was found that severe cases tend to have lower lymphocytes counts. Researchers concluded the novel coronavirus might act mainly on lymphocytes, especially T-lymphocytes. Surveillance of NLR and lymphocyte subsets is helpful in the early screening of critical illness, diagnosis, and treatment of COVID-19.²

Millions and millions of reactions that occur every minute in our cells depend on the availability of micronutrients to keep our systems functioning optimally. Subtle vitamin, mineral, and antioxidant deficiencies contribute to cellular dysfunction; demobilizing innate and adaptive immunity.

The Micronutrient Test uses lymphocytes to assess nutritional status.

The first step in this remarkable test is to QUANTIFY IMMUNE FUNCTION. That's right - SpectraCell's patented technology assesses the strength and adaptability of a person's immune system before nutritional deficiencies are even measured - ON EVERY SAMPLE.

How it Works

Step 1: Isolation



Obtain a sample of the patient's blood and isolate the lymphocytes from the blood.

Step 2: Incubation



Introduce the lymphocytes to a nutritionally perfect environment that is designed to support their growth.

Step 3: Labeling



Add a chemical that tricks the lymphocytes into thinking they need to ramp up.

Step 4: Functional Assessment



Measure how well they respond (how fast they can grow).

Now, more than ever, a person's immune function is worthy of knowing. As a reminder, SpectraCell is still running Micronutrient Tests (which contain Immunidex + a functional assessment of over 30 nutrients) with a normal turnaround time of 10-14 business days.

Sources:

1. Zheng M et al. Functional exhaustion of antiviral lymphocytes in COVID-19 patients, Cell Mol Immunol 2020 Mar 19;1-3
2. Qin C et al. Dysregulation of immune response in patients with COVID-19 in Wuhan, China. Clin Infect Dis 2020 Mar 12.