

## **All About Autoimmune Disorders**

Autoimmune disorders occur when the body fails to tell the difference between self and non-self. When this happens, the body makes antibodies directed against its own tissues called auto-antibodies. Auto-antibodies attack normal cells by mistake, and cause inflammation or organ damage, and affect out health. Autoimmune diseases are also chronic diseases; some of the most common include Rheumatoid Arthritis, Lupus, Multiple Sclerosis, Graves' Disease, Dermatomyositis, and Inflammatory Bowel Disease. Common treatment medications include steroids, anti-inflammatory drugs, and drugs that suppress pain, inflammation, and hormones; with unfortunate harmful side effects.

Many nutrients can slow the immune system from attacking its own body, by acting similarly to traditional medication, but without side effects. Considerable clinical research has found that combining nutrient supplementation and



treatment not only reduces the dosage required, but also prevents disease occurrence.

## **Commonly Seen Test for Autoimmune Diseases**

**Inflammation level:** ESR, erythrocyte sedimentation rate, CPR (C-reactive protein to platelet ratio), and CRP are common references.

**ANA** (**Anti-nuclear antibody**): Major marker for systemic lupus erythematosus (SLE), however, ANA can be present in people without SLE.

Anti-ds-DNA abs: Highly diagnostic of systemic lupus erythematosus (SLE) and implicated in the pathogenesis of lupus nephritis.

Anti-CCP: Diagnostic test for rheumatoid arthritis.

Allergen Panel Test: Usually available to test up to 36 types of allergens, multiple allergosorbent test system (MAST).

Functions of Nutrients	
Fish Oil (EPA+DHA)	<ul> <li>Slow down inflammation and autoimmune diseases' progression, as well as decreasing the usage of anti-inflammation drugs.</li> <li>Decreases severity and increase survival rate.</li> </ul>
Selenium	<ul> <li>Treg cells play an important role in preventing autoimmune responses, selenium can help upregulate and improve differentiation of naive Treg cells</li> <li>Lower serum auto-antibody titers and reduced lymphocytic infiltration.</li> </ul>
Multi- Antioxidants	<ul> <li>Neutralize ROS (Reactive Oxygen Species) and protect the body from oxidative damage.</li> <li>Improves immune function in autoimmune cases.</li> </ul>
Vitamin E	<ul> <li>The most powerful fat-soluble antioxidant, with both anti-inflammatory and protective ability.</li> <li>Can clear up free radicals that damage DNA, thus vitamin E can clear free radicals and reduce antibody formation.</li> </ul>
Vitamin B Complex	<ul> <li>Repairs tissue damage in autoimmune disease.</li> <li>Prevents nerve and organ damage.</li> </ul>
Probiotics	<ul> <li>Maintain gastrointestinal lymph system integrity.</li> <li>Prevent autoimmune response from imbalanced gut flora.</li> </ul>
Calcium, Magnesium, Vitamin D3	Aids in nerve stabilization and maintenance of emotional relaxation.