

Secretory IgA

Mucosal surfaces are the first lines of defense against invasion and colonization by pathogenic microorganisms. The principal molecule of mucosal immune responses is Secretory IgA (SIgA), which is produced by activated B-cells. Upon activation, B-cells in the mucosa form immune complexes with the pathogens and antigens encountered, thereby preventing antigen attachment to the intestinal wall, which may result in antigen penetration of the intestinal lining. IgA is the only immunoglobulin isotype that can be selectively passed across mucosal walls to reach the lumens of organs lined with mucosal cells.

An imbalance of protective SIgA can result in a compromised mucosal immunity and eventual gastrointestinal, immunological and neurological disorders.

A deficiency of SIgA may be an indication of chronic stress, adrenal insufficiencies, bacterial colonization on molar surfaces, recurrent tonsillitis, adenoid hyperplasia, cutaneous candidiasis, intestinal barrier dysfunction, nutritional deficiencies, recurrent herpes infection, celiac, crohn's or ulcerative colitis. Patients presenting with low levels of SIgA are at greater risk of gastrointestinal infections, dysbiosis and autoimmune disorders. Such a patient may have increased IgG responses to multiple foods, or may be asymptomatic.

Known Causes of Low SIgA:

Anti-inflammatory drugs

Captopril

Cyclosporine

Fenclofenac

Gold

Hydantoin

Sodium valproate

Sulfasalazine

Immune hypersensitivity

Stress resulting in high

Cortisol production

Viruses

Congenital rubella

Epstein-Barr

Increased levels of SIgA may be an indication of acute stress, oropharyngeal carcinoma, chronic oral infection, chronic GI infection, heavy smoking, alcoholism, periodontitis, dental plaque accumulation, or intestinal barrier dysfunction.

Complimentary support for mucosal immunity may include, but is not limited to:

30% Akaba Boswellia Acid

Aloe Vera

Betaine HCL

Boswellia

Deglyarhizinatol licorice

Digestive enzymes

Fiber

Glutamine powder

Glutathione

Lactoferrin

Marshmallow root

Omega-3 fish oil

Oxidative stress reduction

Pancreatic enzymes

Pentothenic acid
Phosphatidyl serine
Probiotics
Quercetin
High dose Rhodiola Rosa
Saccharomyces boulardii

Slippery elm
Stress reduction
Vitamin A (retinoic acid)
Vitamin C
Zinc

Additional support may include dietary modification. Consider removing:

Advanced glycation endproducts
(AGEs)
Gluten

High fat foods
Refined carbohydrates
Sugars

To assist in determining the right therapeutic intervention, consider follow-up testing:

Candida albicans antibodies
Food Sensitivity
Gluten Sensitivity

Intestinal Barrier Function
Neurotransmitters