

Secretory IgA

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Exciting News!

Labrix is now offering secretory immunoglobulin A (slgA) testing. This is a valuable tool that allows providers to more deeply assess the stress body's response. In this newsletter we dive into the value of slgA and its clinical relevance.

What is it?

Every mucosal membrane surface represents a large portal of entry for pathogenic bacteria, viruses, and yeasts. **The predominant antibody at these mucosal membranes is slgA, the body's first line of defense against toxins.** IgA accounts for approximately 15 – 20% of serum immunoglobulin, but is the most abundant immunoglobulin in secretions: saliva, tears, colostrum, bronchial, intestinal, and G.I secretions.

SlgA measured in the saliva primarily provides insight into the body's **stress** response, but SlgA production is also driven in **response to pathogens** and their virulence factors, and also in response to intestinal microbes or commensal microflora. **Factors affecting slgA levels include stress, nutrient levels, interactions with other commensal flora or pathogens, and inflammation.** **An imbalanced slgA level may provide a link between mucosal imbalances and systemic illness.**

What it is not:

SlgA is not IgA, a related antibody that is commonly tested in the blood along with IgE and IgG in immunity and allergy problems. **Secretory IgA is independent of blood IgA levels; they may not correlate with one another.**

Level Interpretation:

Low:

Deficiency of slgA is a common finding. Decreased levels of slgA are commonly seen in individuals with low immune system functioning, and are a sign of chronic, ongoing psychological and/or physical stress (HPA axis dysfunction) to the body which has depleted slgA reserves.

SlgA declines with age, and can be seen with some chronic gastrointestinal disorders such as Celiac and IBD, asthma, autoimmune conditions, candidiasis, and chronic dermatological conditions. Lower levels have been associated with increased risk for periodontal disease and caries as well as increased sensitivity to foods. Certain medications, including NSAIDS, can lower levels.

High:

Elevated levels of slgA may be reflective of acute psychological and/or physical

stressors, and can be associated with an upregulated, active immune or inflammatory response. High levels are often found in patients with chronic infections (CMV, EBV, HIV and infections of the GI tract).

Treatments:

Lifestyle improvements, stress management and improved nutritional status may all lead to optimal sIgA levels.

- **HPA Axis Optimization:**

Consider testing diurnal cortisol levels to assess for HPA axis dysfunction. If HPA axis dysfunction is found, see Labrix document "Adrenal Dysfunction Stages and Considerations" for treatment options.

- **Nutrition:**

Choline, essential fatty acids, glutathione, glycine, glutamine, phosphatidylcholine, vitamin C and zinc are all required in the production of sIgA. Probiotic strains shown to increase sIgA levels are: *Lactobacillus rhamnosus* GG, *Lactobacillus acidophilus*, *Bifidobacterium bifidum*, *Bifidobacterium infantis* and *Saccharomyces boulardii*.

- **Immune Support:**

This may be immune support directed against a certain pathogen or support of the immune system in a general sense, including a whole-food diet and exercise. Though a non-exhaustive list, Echinacea, elderberry, vitamin D, and ginger have all been shown to provide immune enhancing properties.

sIgA is tested in saliva, and can be added to any salivary hormone panel, but is especially helpful when paired with salivary cortisol for an in-depth assessment of the body's stress response.

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