



# Total Immunoglobulins

## Key Clinical Messages

### What is the Total Immunoglobulins Test?

The Vibrant Wellness Total Immunoglobulins Test provides a quantitative measurement of total immunoglobulins.

The Total Immunoglobulins test cannot be ordered as a standalone test.

### Which Patients are Good Candidates for Total Immunoglobulins Testing?

Patients experiencing the following may benefit from this test:

- Immunodeficiency disorders
- Allergic diseases
- Autoimmune diseases
- Immune complex diseases
- Use of steroids, biologics, IV IgG, or other immunomodulating medications

### What Markers are Included on the Total Immunoglobulins Test?

Vibrant's Total Immunoglobulins Test measures:

- **Total IgE:** IgE antibodies are associated with allergies, allergic disease, and parasitic infections.
- **Total IgA:** IgA antibodies make up approximately 15% of total immunoglobulins, and provide protection against infection in mucosal areas of the body- gastrointestinal tract, respiratory tract, and genitourinary tract. There are two IgA subclasses, IgA1 and IgA2.
- **Total IgG:** IgG antibodies make up approximately 70-80% of total immunoglobulins, and are produced upon exposure to infectious or other antigens (e.g., food antigens, inhalant antigens, vaccines). IgG antibodies have 'immunological memory' and can be rapidly produced upon repeat exposure to the same antigen. There are four IgG subclasses, IgG1, IgG2, IgG3, and IgG4.
- **Total IgM:** IgM antibodies are produced as a first response to an infectious-, non-self-, or auto-antigen. IgM antibodies rise quickly in acute infection and then decline as IgG production begins and increases.

### Which Tests Pair Well with the Total Immunoglobulins Test?

The Total Immunoglobulins test is a helpful add-on to any antibody test, including:

- Food Zoomers
- Food Sensitivities
- Food Additives
- Candida + IBS Profile
- Neural Zoomer
- Neural Zoomer Plus
- Tickborne



## Why Order the Total Immunoglobulins Test?

The Total Immunoglobulins Test can be used to detect and monitor a deficiency (hypogammaglobulinemia) or excess (hypergammaglobulinemia) of one or more immunoglobulin classes.

- Immunoglobulin deficiency can be:
  - **Primary** (inherited)—rare disorders in which the body is not able to produce one or more classes of immunoglobulins.
  - **Secondary** (acquired)—the most common immunoglobulin deficiencies are caused by an underlying condition or contributing factor that causes an abnormal loss or increased catabolism of immunoglobulins, or conditions or factors affecting the production of one or more classes of immunoglobulins (e.g., nephrotic syndrome and other renal diseases, protein-losing enteropathy, nutritional due to malnutrition or alcoholism, immunosuppressive drugs).
- Immunoglobulin excess can be:
  - **Polyclonal**—an immunoglobulin excess in any or all immunoglobulin classes from many different plasma cells
  - **Monoclonal**—the excess immunoglobulins are from the clones of one plasma cell.

The Total Immunoglobulins Test evaluates baseline total immunoglobulin levels, which is critical for the accurate interpretation of specific-immunoglobulin tests for infectious antigens or food antigens (e.g., Virus Infection Panel, Food Sensitivity, Food Zoomers, Neural Zoomer tests).

The challenge is understanding false positives and/or false negatives for specific IgA/IgG when total IgA/IgG is high (potentially a false positive) or low (potentially a false negative).

Testing Total Immunoglobulins is especially vital if a patient is on IV IgG therapy or is taking steroids, immunosuppressive medications, biologic agents, or other immunomodulating medications, as they may get falsely lower or falsely higher antibody results.

## Test Preparation

- **Fasting:** Not required.
- **Diet Restrictions:** None.
- **Dietary Supplement Restrictions:** None.
- **Medication Restrictions:** None. However, steroids, immunosuppressive medications, biologic agents, or other immunomodulating medications may cause lower or higher total immunoglobulins levels.

## Why Vibrant?

### Lab Methodology

Vibrant Wellness is a CLIA-certified and CAP-accredited lab that utilizes reliable, FDA-approved methodologies to measure total immunoglobulin levels.

### Methodology

The Total Immunoglobulins test is collected using serum blood draws. It cannot be tested with at-home Dried Blood Spot (DBS) specimen collections.

## Reference Ranges

The Total Immunoglobulins test can be ordered for patients aged 0-18, and the report will populate with the age-matched reference ranges on the lab results.

