

Name of the test

Total IgE

What is this test used for?

IgE (Immunoglobulin E) is an antibody, which is produced by the immune system.

Antibodies are proteins, secreted by plasma cells. They play an important role in immune system as they respond to various microorganisms and antigens.

Antibodies are also known as immunoglobulins. There are five classes of immunoglobulins: IgA, IgG, IgD, IgE and IgM.

IgE is associated with allergic responses and immunity to parasites. Normally, there is only a small amount of IgE in the blood. However, if an allergic person is exposed to an allergen (the substance that causes allergic response) his or her immune system produces IgE specifically directed against that allergen. This increases levels of IgE in the blood. IgE then binds to basophils, which results to releasing various substances, including histamine. These substances are the cause of allergic symptoms – itching, hives, sneezing, coughing, itchy eyes, asthma, etc. The severity of symptoms do not necessarily correspond to levels of total IgE in the blood.

Common allergens include strawberries, peanuts, eggs, pollen, animal dander and others.

This test measures the amount of total IgE in the blood, not the amount of a specific type of IgE. Therefore, this test can be used to detect an allergic response, but not a specific allergy.

When is the test ordered?

Total IgE test may be ordered when the patient has symptoms of allergy, or sometimes when parasitic infection is suspected.

This test can be performed to detect allergic diseases, however sometimes an allergen-specific IgE test may be also ordered to identify the substance to which the patient is allergic.

Apart from total IgE, a test to determine the number of eosinophils may also be ordered.

How is this test performed?

A blood sample is taken from a vein.

How to prepare for the test

No preparation is needed.

Interpretation of results

Increased levels of total IgE may be due to allergy or parasitic infection.

When a person is exposed to an allergen both total and allergen-specific IgE become elevated. In between exposures, their levels are decreased. For this reason, normal levels of IgE do not always rule out allergy.

Even though high levels of IgE indicate presence of an allergic process, the result of total IgE test alone does not indicate which allergen causes the symptoms. Allergen-specific IgE may be needed to identify the specific allergen.