

What It Is

An allergen-specific immunoglobulin E (IgE) blood test is done to check whether a person is allergic to a particular substance.

An allergic reaction occurs when the immune system overreacts to something, often in the environment, that's harmless to most people. To protect the body from this perceived threat, or allergen, the immune system of an allergic person produces antibodies called immunoglobulin E.

IgE antibodies are found mostly in the lungs, skin, and mucous membranes. They cause mast cells (a type of cell involved in the body's immune response) to release chemicals, including histamine, into the bloodstream. It's these chemicals that bring on many of the allergy symptoms that affect a person's eyes, nose, throat, lungs, skin, or gastrointestinal tract.

Because IgE antibodies are unique to each allergen (for example, IgE produced in response to pollen differs from IgE produced after a bee sting), checking for specific variants in the blood can help determine if an allergy is present.

Common allergens that may be tested for by using the allergen-specific IgE test include:

- ◆ pollen
- ◆ mold
- ◆ animal dander
- ◆ dust mites
- ◆ foods (including peanuts, milk, eggs, or shellfish)
- ◆ cockroaches
- ◆ medications (such as penicillin)
- ◆ insect venom (from bee or wasp stings)
- ◆ latex (found in certain balloons or hospital gloves)
- ◆ Your doctor also may order a group of these tests — sometimes called a mini-screen or mini-panel — to look for antibodies against a variety of suspected allergens.

Why It's Done

This test is performed to check for allergies to specific allergens. Doctors may order it when a child has symptoms of an allergy (include hives, itchy eyes or nose, sneezing, nasal congestion, throat tightness, or trouble breathing). Symptoms may be seasonal (as with allergies due to pollen or molds) or year-round (as with pet dander) and can range from mild to severe.

This test is especially useful in children who've had life-threatening reactions to a certain allergen and for whom a skin-prick test would be too dangerous. In some cases, the test may also be used to monitor the effectiveness of allergy treatments, or to see if a child has outgrown an allergy.