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What do the different types of antibodies mean?

Relevance of IgG and IgM antibodies

To best understand the differences in antibodies, it is important to first understand what an antibody is. Antibodies, also referred to as immunoglobulins, are proteins in your blood that help the immune system fight against antigens, such as bacteria, viruses, and toxins. Antigens are harmful substances which are present within the body and require an immune response to prevent damage or illness. An immunoglobulin test measures the level of certain immunoglobulins, or antibodies, in the blood to essentially measure the level of infection present or possible stage of infection.

The body makes different immunoglobulins to combat different antigens and at different times. Some antibodies are more abundant in particular locations within the body, or matrix collected.

The five subclasses of antibodies are:

1. **Immunoglobulin G (IgG)**, the most abundant type of antibody, is found in all body fluids and protects against bacterial and viral infections.
2. **Immunoglobulin M (IgM)**, which is found mainly in the blood and lymph fluid, is the first antibody to be made by the body to fight a new infection.
3. **Immunoglobulin A (IgA)**, which is found in high concentrations in the mucous membranes, particularly those lining the respiratory passages and gastrointestinal tract, as well as in saliva and tears.
4. **Immunoglobulin E (IgE)**, which is associated mainly with allergic reactions (when the immune system overreacts to environmental antigens such as pollen or pet dander). It is found in the lungs, skin, and mucous membranes.
5. **Immunoglobulin D (IgD)**, which exists in small amounts in the blood, is the least understood antibody.

Once an antibody is produced against a specific antigen, the next time that specific antigen enters the body, your immune system can more readily fight against it and respond quicker due to your body's ability to "remember". When a test result looks at multiple antibodies, such as IgG and IgM, they are trying to best understand the timeline of your infection and stage of recovery. IgG and IgM antibodies are the most referenced immunoglobulins in the testing of blood.