National Hemophilia Foundation

hemophilia.org/Bleeding-Disorders/Inhibitors-Other-Complications/Inhibitors-for-Consumers/What-is-an-

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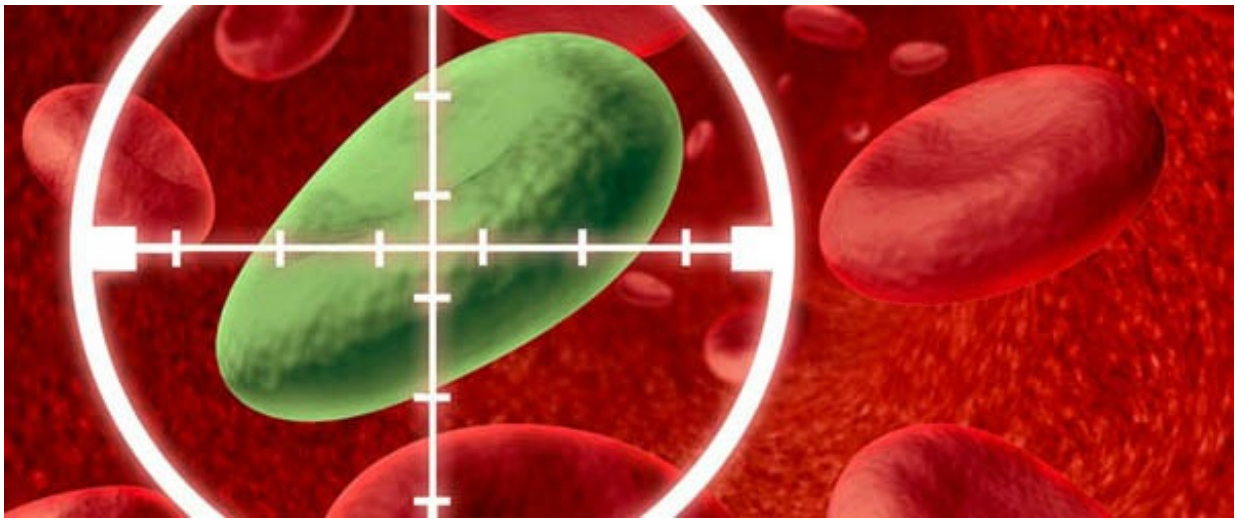

The body protects itself from disease with a host of defenses that are collectively called the immune system. The immune systems first lines of defense are barriers, such as the skin and mucus membranes. However, this is not the body's only defense. Once something has made its way past these barriers, the body mounts a cellular immune response. This cellular response results in the production of antibodies.

An antibody is produced in response to the presence of foreign substance in the body. The foreign substances that induce an immune response and interact with antibodies are called antigens. Antigens are traditionally defined as any substance that, when introduced into the body, is recognized as foreign and causes the production of antibodies.

In most cases, antibodies can help protect the body by destroying foreign substances (which are often viruses and bacteria) that can cause disease. People who have hemophilia, may not produce the coagulation protein needed for this process. Therefore in some cases, when it receives replacement factor, the body's immune system will perceive the normal clotting factor as different from itself or as an antigen to which an antibody is produced. These antibodies are called inhibitors. The antibody, or inhibitor, binds itself to the infused clotting factor making it difficult, if not impossible, to obtain a level sufficient to control bleeding.