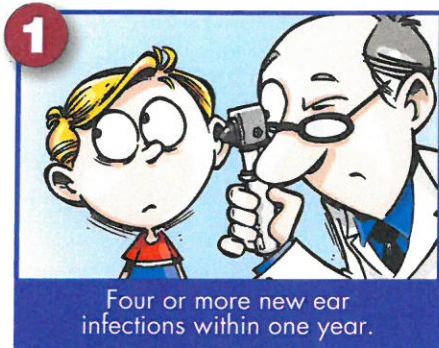
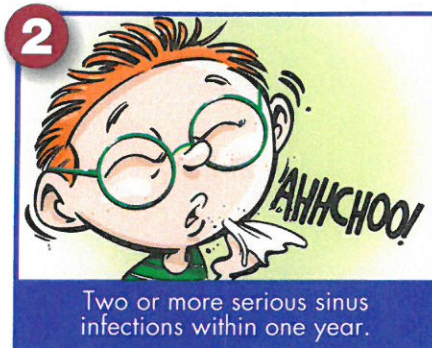


# 10 Warning Signs of Primary Immunodeficiency

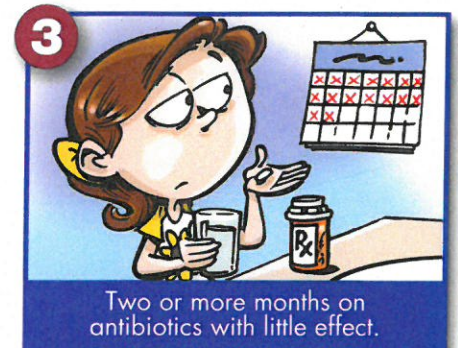
Primary Immunodeficiency (PI) causes children and adults to have infections that come back frequently or are unusually hard to cure. 1:500 persons are affected by one of the known Primary Immunodeficiencies. If you or someone you know is affected by two or more of the following Warning Signs, speak to a physician about the possible presence of an underlying Primary Immunodeficiency.



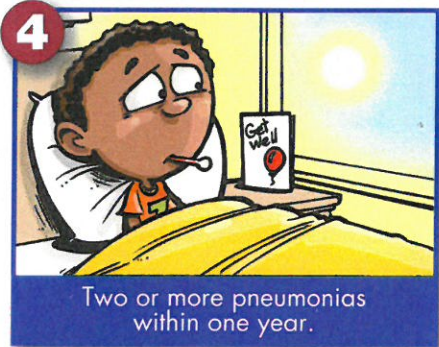
1 Four or more new ear infections within one year.



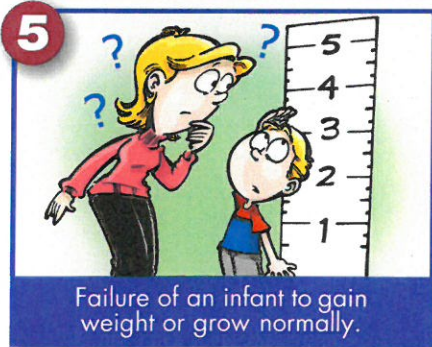
2 Two or more serious sinus infections within one year.



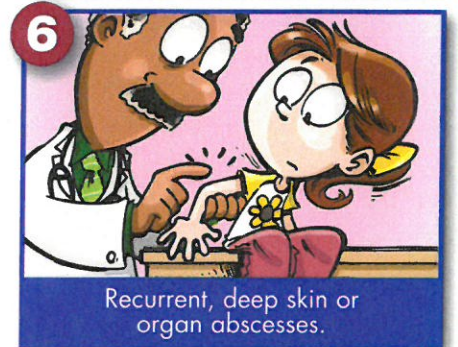
3 Two or more months on antibiotics with little effect.



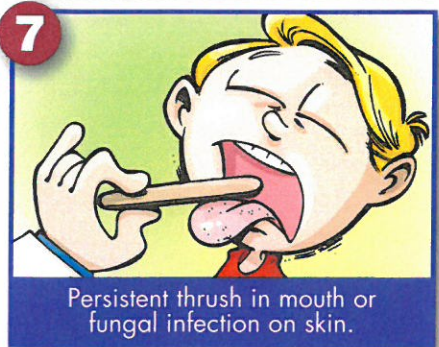
4 Two or more pneumonias within one year.



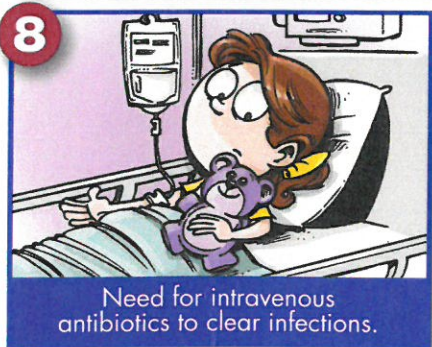
5 Failure of an infant to gain weight or grow normally.



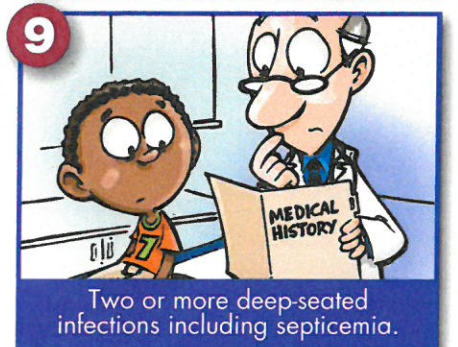
6 Recurrent, deep skin or organ abscesses.



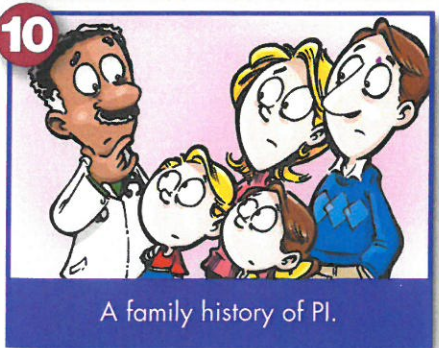
7 Persistent thrush in mouth or fungal infection on skin.



8 Need for intravenous antibiotics to clear infections.



9 Two or more deep-seated infections including septicemia.



10 A family history of PI.

Presented as a public service by:



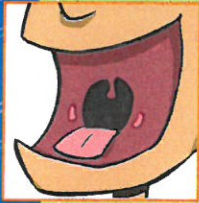
These warning signs were developed by the Jeffrey Modell Foundation Medical Advisory Board. Consultation with Primary Immunodeficiency experts is strongly suggested. © 2013 Jeffrey Modell Foundation  
For information or referrals, contact the Jeffrey Modell Foundation: [info4pi.org](http://info4pi.org) | 866-INFO-4-PI

# Your Body's Best Defense

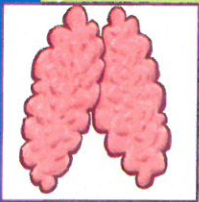


Every day, your body fights off infections, germs, bacteria and parasites. It is destroying these invaders, called *pathogens*, with the help of its number one defense: *the immune system*.

The immune system's job is to keep your body healthy. This requires many different parts of the body to work together against pathogens. Here are the main components of your immune system:



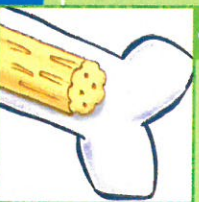
**1 Tonsils** - Located in the back of your throat, the tonsils protect the entrance to your respiratory and digestive systems by destroying bacteria with the help of white blood cells.



**2 Thymus Gland** - Located underneath the middle of your breastbone and above your heart, the thymus gland stores white blood cells until they are mature, and then provides them with specific jobs.



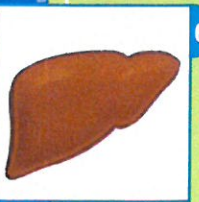
**3 Lymph Nodes** - Small, bean-shaped nodules on the lymphatic vessels, lymph nodes are located primarily in your armpits and groin regions. They filter pathogens out of the lymphatic system.



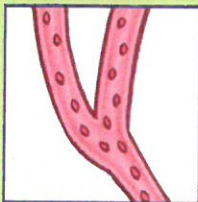
**4 Bone Marrow** - Located inside your body's bones, it produces red and white blood cells. Red blood cells carry oxygen to other cells and body parts, and remove carbon dioxide. White blood cells look for and destroy pathogens. The different types of white blood cells are phagocytes, B-cells and T-cells.



**5 Spleen** - The largest lymphoid organ in the lymphatic system, the spleen is located to the left of your stomach. The spleen removes pathogens from the blood as it passes through.



**6 Liver** - Your body's largest internal organ, the liver contains white blood cells. These cells destroy bacteria in the blood as it passes through the liver. It also processes nutrients found in the blood and produces bile used in digestion.



**7 Blood** - Red and white cells travel throughout your body's blood vessels. While white blood cells defend against pathogens, your red blood cells nourish your body.



Some people are born with immune systems that don't work as well as others. This might be caused by a genetic disorder called **Primary Immunodeficiency (PI)**, which might cause a person to be sick a little more often.

For more information, visit the **Jeffrey Modell Foundation Website** at [www.info4pi.org](http://www.info4pi.org) or call 1-866-info-4-pi.

Now that you know how your immune system works, do your part to help it by keeping your body healthy with proper nutrition and exercise.

