



Fifth Disease

The name 'fifth disease' is historic and the infection is among classic rash-associated infections of childhood. The others are measles, scarlet fever, and rubella (German measles).

What is it?

Fifth disease is a mild infection most common in kids under age ten and occurring in the springtime. An ill child typically has a "slapped-cheek" rash on the face and a lacy red rash on the body, arms and legs. They may also have a low-grade fever or cold like symptoms a few days prior to the rash outbreak. Because the disease is only contagious before the rash is visible, a child who has a rash is no longer infectious and does not need to stay home from school. The rash usually fades in 7-10 days.

Can adults get Fifth Disease?

Older kids and adults sometimes complain the rash itches, but do not look sick or have a fever. Studies show that 40% to 60% of adults worldwide show laboratory evidence of past parvovirus infection, but most of these adults cannot recall ever having had fifth disease symptoms. Certain stimuli can reactivate the rash until it fades completely; stress, sunlight, and exercise. Sometimes the attack leads to arthritic swelling or pain in wrists and knees.

What causes it?

Fifth Disease is caused by an infection with the human parvovirus B19 and is spread by contact with respiratory secretions. Like many viruses, exposure is usually followed by immunity to the disease. Parvovirus B19 is a human virus; and it is not the same parvovirus that veterinarians may be concerned about in pets, especially dogs, and cannot be passed from humans to animals or vice versa.

How is it diagnosed?

A blood test looks for antibodies to parvovirus. The antibodies are proteins produced by the immune system in response to parvovirus B19. It is found in the respiratory secretions of infected persons before the onset of the rash, similar to a cold. The virus is spread person to person through direct contact with those secretions; like drinking cups or utensils. Up to 50% of susceptible persons exposed to a family member with fifth disease can become infected. During school outbreaks, 10% to 60% of students may get fifth disease.

How is it treated?

Treatment of symptoms; like fever, pain and itching is usually all that is needed for fifth disease. Adults with joint pain and swelling may need to rest, restrict their activities, and take medicines such as aspirin or ibuprofen. These symptoms are usually resolved without long-term disability.

People with sickle-cell disease or similar types of chronic anemia may need to be hospitalized for blood transfusions. Once the infection is controlled, the anemia resolves. Persons with compromised immune systems, like leukemia, organ transplants, cancer, or HIV may need to be treated with globulin (antibodies).

No vaccine or medication is currently available to prevent parvovirus B19 infection. Frequent hand washing is a practical and effective method for decreasing the chance of becoming infected. Excluding persons with fifth disease rashes are not likely to prevent the spread of the virus, since people are contagious *before* they develop the rash.

Concern for pregnant women:

Occasionally, serious complications may develop from parvovirus B19 infection during pregnancy, as some fetuses have developed anemia. Further, if the infection occurs during the first trimester, the fetus may not survive. Despite the fact that about half of all pregnant women are immune due to having had a previous infection with parvovirus, serious problems do occur in about 5% of women infected during pregnancy. Thus, it is important to be checked out by your doctor as soon as possible.

For further information, contact:

*The Centers for Disease Control and Prevention
National Center for Preparedness, Detection, and
Control of Infectious Diseases*

Phone: (800)-232-4636

Or call your local health department

Contact: Pamela Sook, Coordinator Health & Drug Education (989) 667-3262
