

What is "fifth disease"?

Fifth disease is a mild rash illness that occurs most commonly in children. The ill child typically has a "slapped-cheek" rash on the face and a lacy red rash on the trunk and limbs. Occasionally, the rash may itch. An ill child may have a low-grade fever, malaise, or a "cold" a few days before the rash breaks out. The child is usually not very ill, and the rash resolves in 7 to 10 days.

What causes fifth disease?

Fifth disease is caused by infection with human parvovirus B19. This virus infects only humans. Pet dogs or cats may be immunized against "parvovirus," but these are animal parvoviruses that do not infect humans. Therefore, a child cannot "catch" parvovirus from a pet dog or cat, and a pet cat or dog cannot catch human parvovirus B19 from an ill child.

Can adults get fifth disease?

Yes, they can. An adult who is not immune can be infected with parvovirus B19 and either have no symptoms or develop the typical rash of fifth disease, joint pain or swelling or both. Usually, joints on both sides of the body are affected. The joints most frequently affected are the hands, wrists, and knees. The joint pain and swelling usually resolve in a week or two, but they may last several months. About 50% of adults, however, have been previously infected with parvovirus B19, have developed immunity to the virus, and cannot get fifth disease.

Is fifth disease contagious?

Yes. A person infected with parvovirus B19 is contagious during the early part of the illness, before the rash appears.

How does someone get infected with parvovirus B19?

Parvovirus B19 has been found in the respiratory secretions (e.g., saliva, sputum, or nasal mucus) of infected persons before the onset of rash, when they appear to "just have a cold." The virus is probably spread from person to person by direct contact with those secretions, such as sharing drinking cups or utensils. In a household, as many as 50% of susceptible persons exposed to a family member who has fifth disease may become infected. During school outbreaks, 10% to 60% of students may get fifth disease.

How soon after infection with parvovirus B19 does a person become ill?

A susceptible person usually becomes ill 4 to 14 days after being infected with the virus, but may become ill for as long as 20 days after infection.

Does everyone who is infected with parvovirus B19 become ill?

No. During outbreaks of fifth disease, about 20% of adults and children who are infected with parvovirus B19 do not develop any symptoms. Furthermore, other persons infected with the virus will have a non-specific illness that is not characteristic of fifth disease. Persons infected with the virus, however, do develop lasting immunity that protects them against infection in the future.

How is fifth disease diagnosed?

A physician can often diagnose fifth disease by seeing the typical rash during a physical examination. In cases in which it is important to confirm the diagnosis, a blood test may be done to look for antibodies to parvovirus. Antibodies are proteins produced by the immune system in response to parvovirus B19 and other germs. If immunoglobulin M (IgM) antibody to parvovirus B19 is detected, the test result suggests that the person has had a recent infection.

Is fifth disease serious?

Fifth disease is usually a mild illness that resolves on its own among children and adults who are otherwise healthy. Joint pain and swelling in adults usually resolve without long-term disability. Fifth disease can be of great concern to pregnant women and/or individuals with compromised immune systems.

How are parvovirus B19 infections treated?

Treatment of symptoms such as fever, pain, or 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 to relieve symptoms. The few people who have severe anemia caused by parvovirus B19 infection may need to be hospitalized and receive blood transfusions. Persons with immune globulin (antibodies), to help their bodies get rid of the infection.

Please note:

Hamburg School Policy states that should your child be suspected of having fifth disease that they be seen by their primary medical doctor to confirm (or rule out) fifth disease. Additionally there can be other causes of this type of rash such as strep.