



Central Michigan District Health Department

Promoting Healthy Families, Healthy Communities



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Fifth Disease (Erythema Infectiosum Human Parvovirus Infection)

What is Fifth Disease?

Fifth disease is a mild illness caused by parvovirus B19. Only humans can get this disease.

Who gets Fifth Disease?

Anyone can be infected, but the disease seems to occur more often in elementary school-age children.

How does the virus spread?

The virus is spread by exposure to respiratory secretions, such as saliva, sputum, or nasal mucus; when an infected person coughs or sneezes. Transmission can also occur from mother to fetus, and through transfusion of blood and blood products.

What are the symptoms and when do they appear?

About two weeks after exposure, some children may experience a low-grade fever, joint pain and tiredness. By the third week, a red rash generally appears on the cheeks giving a 'slapped cheek' appearance. The rash may then extend to the body and can fade and reappear for 1-3 weeks or longer on exposure to sunlight or heat (e.g., bathing). Sometimes, the rash is lacy in appearance and may be itchy. Some children may have vague signs of illness or no symptoms at all. Adults are usually immune but may experience the same symptoms as children and suffer joint discomfort.

When and for how long is a person able to spread the disease?

People with fifth disease appear to be contagious when they have a fever or cold symptoms. By the time the rash is evident, the person is typically beyond the contagious period.

How is Fifth Disease diagnosed?

In most cases, the disease is diagnosed based on the appearance of 'slapped cheeks' and of typical symptoms. While uncommonly ordered, a blood test may also confirm the diagnosis.

Does past infection with the virus make a person immune?

It is thought that people who have been previously infected acquire long-term or lifelong immunity.

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What is the treatment?

Currently, there is no specific medication or vaccine.

What are the complications associated with Fifth Disease?

While most women infected during pregnancy will not be affected, some studies have shown that parvovirus B19 may infect the fetus and increase the risk of miscarriage within the first 18 weeks of pregnancy. In people with chronic red blood cell disorders, such as sickle-cell disease, infection may result in severe anemia. Infection has also been associated with arthritis in adults.

What can be done to prevent the spread of Fifth Disease?

Measures to effectively control fifth disease have not been developed yet. During outbreaks in schools, pregnant school employees and people with chronic red blood cell disorders should consult their physician for advice. Children with the rash of fifth disease may attend childcare or school as they are not infectious.

Transmission of Fifth's Disease may be reduced by the following measures:

- Handwashing
- Practice good cough etiquette (i.e., "cough in your sleeve")
- Disposing of articles with nasal/oral drainage in trash receptacles.
- Thorough washing of items that have contained nasal or oral drainage. Wash and dry at hottest temperature for the fabric.