Fifth Disease

(Erythema Infectiosum, Parvovirus B19 Infection)

What is fifth disease?

Fifth disease is a viral infection that often affects red blood cells. It is caused by human parvovirus B19. For many years, fifth disease was viewed as an unimportant rash illness of children. While this remains mostly true, in recent years it has been recognized that fifth disease may be responsible for serious complications in certain individuals.

Who gets fifth disease?

Anyone can be infected, but the disease seems to occur more often in elementary school-age children. By adulthood, more than half of all persons has had the infection. Infection leads to long-term and probably life-long immunity.

How is the virus spread?

Parvovirus B19 is spread by exposure to airborne droplets from the nose and throat of an infected person. People with fifth disease appear to be contagious during the week before a rash appears. By the time a rash appears, the infected person is no longer infectious.

What are the symptoms and when do they appear?

One to two weeks after exposure, some children will experience a low-grade fever and tiredness. By the third week, a red rash may appear on the cheeks giving a slapped cheek appearance. The rash may then extend to the body and tends to fade and reappear over a period of weeks. Sometimes, the rash is lacy in appearance and may be itchy. Some children may have vague signs of illness without a rash. Infections without symptoms may be common.

How is fifth disease diagnosed?

In most cases, the disease is diagnosed based on the appearance of typical symptoms. A specific blood test is available to confirm the diagnosis or to show that someone is already immune, but the test is usually not necessary in healthy children.

What is the treatment?

There is no specific treatment.

What are the complications of fifth disease?

In adults, temporary symptoms of joint pain and swelling may occur. While there is no evidence that parvovirus B19 infection is a cause of fetal defects, infection in a pregnant woman may lead to fetal loss (miscarriage). Infection can be serious for people who have chronic red blood cell disorders such as sickle-cell disease and â-thalassemia or who have immunodeficiency.

What can be done to prevent the spread of fifth disease?

There are no proven methods to control the spread of this common disease. Exclusion of infected children from schools and day care is not useful because people are most infectious before obvious symptoms of the disease appear, or they may have no symptoms. Once the rash appears, people are not infectious. During outbreaks in schools and day care, pregnant women and persons potentially at risk for serious complications should consult their individual doctors and the local health department for advice specific to their situation.