

FIFTH DISEASE (HUMAN PARVOVIRUS B19) AND PREGNANCY

Fifth disease basics

Parvovirus B19 is a virus that only infects humans. About 50% of all adults have been infected sometime during childhood or adolescence. The most common illness caused by parvovirus B19 infection is fifth disease, a mild rash illness that occurs most often in children. The ill child usually first has an intense redness of the cheeks (a “slapped-cheek” appearance) and later a lacy red rash on the trunk and limbs. Occasionally, the rash may itch. The rash resolves in 7 to 10 days; however, if the person is exposed to sunlight or heat, the rash may come back for 1-3 weeks or even longer. Recovery from parvovirus infection produces lasting immunity and protection against future infection.

An adult who has not previously been infected with parvovirus B19 can be infected and have no symptoms or can become ill with a rash and joint pain and/or joint swelling. The joint symptoms usually go away in a week or two, but may last several months. For general fact sheets on fifth disease, see Section 6.

Fifth disease and pregnancy

There are usually no serious complications for a pregnant woman or her baby following exposure to a person with fifth disease. About 50% of women are already immune to parvovirus B19, and these women and their babies are protected from infection and illness. Even if a woman is not immune and is infected with parvovirus B19 while pregnant, she usually experiences only a mild illness. Likewise, her unborn baby usually does not have any problems because of the parvovirus B19 infection.

Sometimes, however, parvovirus B19 infection will cause the unborn baby to have severe anemia and the woman may have a miscarriage. This occurs in less than 5% of all pregnant women who are infected with parvovirus B19 and occurs more commonly during the first half of pregnancy. There is no evidence that parvovirus B19 infection causes birth defects or mental retardation.

Exposure to fifth disease during pregnancy

If pregnant women are exposed to fifth disease, they should consult their health care provider for information about diagnosis, possible lab tests, and follow-up.

Testing for fifth disease

A blood test can be done for parvovirus B19. This test may show that a patient:

- is immune (has already had the infection and there is no sign of recent infection). The patient has protection against parvovirus B19 and does not need to be concerned.
- is not immune (has not had the infection). Standard infection precautions and proper handwashing should be done when working with children.
- has a recent infection. The infection should be discussed with the patient’s health care provider.

There is no universally recommended approach to monitor a pregnant woman who has a documented parvovirus B19 infection. Some health care providers treat a parvovirus B19 infection in a pregnant woman as a low-risk condition and continue to provide routine prenatal care. Other health care providers may increase the frequency of doctor visits and perform blood tests and ultrasound examinations to monitor the health of the unborn baby. The benefit of these tests in this situation, however, is not clear. If the unborn baby appears to be ill, there are special diagnostic and treatment options available. An obstetrician will discuss these options with the patient about the potential benefits and risks.

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Fifth disease prevention

There is no vaccine or medicine that can prevent parvovirus B19 infection. Frequent handwashing is recommended as a practical and probably effective method to reduce the spread of parvovirus (see fifth disease fact sheets). Excluding persons with fifth disease from work, childcare setting, schools, or other settings is not likely to prevent the spread of parvovirus B19, since ill persons are only contagious before they develop the characteristic rash.

Because of this, the Centers for Disease Control and Prevention (CDC) do not recommend that pregnant women routinely be excluded from a workplace where a fifth disease outbreak is occurring. Rather, CDC considers this a woman's personal decision after a discussion with her family, health care provider, and employer.

Pregnant women can do the below to protect themselves against fifth disease:

- Wash hands thoroughly with soap and warm running water after touching secretions from the nose or mouth. Thorough handwashing is the best way to prevent the spread of communicable diseases.

For more information, call Hennepin County HSPHD-Epidemiology at (612) 543-5230 or call your local health department.