

# **Parvovirus B19 Infection and Pregnancy**

## **What is parvovirus B19?**

Parvovirus B19 is a virus that commonly infects humans; about 50% of all adults have been infected sometime during childhood or adolescence. Parvovirus B19 infects only humans. There are also animal parvoviruses, but they do not infect humans. Therefore, a person cannot catch parvovirus B19 from a dog or cat.

## **What illnesses does parvovirus B19 infection cause?**

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 typically has a "slapped-cheek" rash on the face and a lacy red rash on the trunk and limbs. Occasionally, the rash may itch. The child is usually not very ill, and the rash resolves in 7 to 10 days. Once a child recovers from parvovirus infection, he or she develops lasting immunity, which means that the child is protected against future infection.

An adult who has not previously been infected with parvovirus B19 can be infected and become ill, and develop a rash, or joint pain or swelling, or both. The joint symptoms usually resolve in a week or two, but they may last several months.

## **Are these illnesses serious?**

Fifth disease is usually a mild illness. It resolves without medical treatment among children and adults who are otherwise healthy. Joint pain and swelling in adults usually resolve without long-term disability. During outbreaks of fifth disease, about 20% of adults and children are infected without getting any symptoms at all.

## **I've recently been exposed to a child with fifth disease. How will this affect my pregnancy?**

Usually, there is no serious complication for a pregnant woman or her baby because of 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 susceptible and gets infected with parvovirus B19, she usually experiences only a mild illness. Likewise, her unborn baby usually does not have any problems attributable to 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.

## **If I've been exposed to someone with fifth disease, what should I do?**

If you have been in contact with someone who has fifth disease, or if you have an illness that might be caused by parvovirus B19, you may wish to discuss your situation with your personal physician. Your physician may wish to perform a blood test to see if you have become infected with parvovirus B19.

## **I have had a blood test for parvovirus B19. What do the results of the blood test mean?**

A blood test for parvovirus B19 may show 1) that you are immune to parvovirus B19 and have no sign of recent infection, 2) that you are not immune and have not yet been infected, or 3) that you have had a recent infection. If you are immune, then you have nothing further to be concerned about. If you are not immune and not yet infected, then you may wish to avoid further exposure during your pregnancy. If you have had a recent infection, you should discuss with your physician what to do to monitor your pregnancy.

## **If I'm infected, what do I need to do about my pregnancy?**

There is no universally recommended approach to monitor a pregnant woman who has a documented parvovirus B19 infection. Some physicians treat a parvovirus B19 infection in a pregnant woman as a low-risk condition and continue to provide routine prenatal care. Other physicians 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, and your obstetrician will discuss these options with you and their potential benefits and risks.

## **Is there a way I can keep from being infected with parvovirus B19 during my pregnancy?**

There is no vaccine or medicine that prevents parvovirus B19 infection. Frequent hand washing is recommended as a practical and probably effective method to reduce the spread of parvovirus. Excluding persons with fifth disease from work, child care centers, schools, or other settings is not likely to prevent the spread of parvovirus B19, since ill persons are contagious before they develop the characteristic rash.

CDC does not recommend that pregnant women should routinely be excluded from a workplace where a fifth disease outbreak is occurring, because of the problems noted above. Rather, CDC considers that the decision to stay away from a workplace where there are cases of fifth disease is a personal decision for a woman to make, after discussions with her family, physician, and employer.

For further information, contact the Respiratory and Enteric Viruses Branch, National Center for Infectious Diseases, at 404-639-3607 (telephone) or 404-639-4960 (facsimile).

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