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## **Fifth Disease (parvovirus B19) and Pregnancy**

This sheet talks about the risks that exposure to fifth disease can have during pregnancy. With each pregnancy, all women have a 3% to 5% chance of having a baby with a birth defect. This information should not take the place of medical care and advice from your health care provider.

### ***What is fifth disease?***

Fifth disease, also called erythema infectiosum, is a viral illness caused by human parvovirus B19. It occurs most commonly in children ages 4 to 14. The infection often starts with mild fever, sore throat, and flu-like symptoms. Children also develop a bright red rash on the face that looks like “slapped cheeks”. Along with the facial rash, a lacy or bumpy rash may appear on the body, arms, and legs. Joint aches occur more commonly in adults than children. Rash and joint symptoms may develop several weeks after infection. As many as 20 to 30 percent of adults infected with parvovirus B19 have no symptoms.

### ***Is fifth disease contagious?***

Yes, fifth disease is contagious. The virus is spread through contact with secretions of the nose and lungs, and through contact with blood. The incubation period (the time between infection and the development of the illness) is between 4 and 21 days.

Individuals with fifth disease are most infectious before the onset of symptoms and are unlikely to be contagious after the development of the rash and other symptoms. This makes efforts to prevent exposure very difficult.

### ***I don't remember ever having fifth disease. Can I develop the infection?***

Because fifth disease is a mild illness, many adults may not be aware that they have had it, especially since many people do not have symptoms. About 50 percent of adults have had the infection, have antibodies to the virus, and are immune. These antibodies

prevent infection for you and your unborn baby. A blood test can be done to look for the antibodies and tell if you have had a recent infection or are not immune.

### ***I don't think I've had fifth disease and have been recently exposed at work. Should I continue to go to work?***

You should ask your doctor to obtain a blood test for antibodies to parvovirus B19 to see if you are immune to fifth disease. Studies show that many women in occupations such as daycare supervision and teaching have antibodies to fifth disease and thus are not at risk for infection. However, if you are not immune to the disease, there is a 20 to 30 percent risk that you will be infected following exposure in a school or daycare setting.

You should talk to your doctor about whether you should continue working. If you continue to work, there are ways to lessen your risk of infection, including good hand washing, not sharing food or drinks, and other hygiene measures.

### ***My children had fifth disease about 3 weeks ago and now my joints are sore. I am pregnant. Could I have fifth disease?***

Yes, it is possible that you have fifth disease. However, there are many other causes of joint pain. Your doctor may consider ordering a blood test to check for antibodies to fifth disease. If you are not immune, you have a 50 percent risk of becoming infected from contact with an infected family member.

***I am 14 weeks pregnant and testing showed that I recently had fifth disease. Is my pregnancy at increased risk of problems because of the infection?***

Many studies show that the majority of women who become infected with fifth disease deliver healthy babies, without birth defects, prematurity, or other problems. In a small number of cases, fetal loss (miscarriage or stillbirth) can occur. Infection resulting in fetal loss is more likely to occur in the first 20 weeks of pregnancy, with a risk of around 10%. Infections after 20 weeks gestation have a risk for fetal loss that is more in the range of 1%.

Fetal infection with fifth disease can lead to inflammation of the heart (myocarditis) and can damage the bone marrow so that red blood cells cannot be made. This in turn can lead to anemia. If the heart damage or anemia is severe, hydrops (excess fluid in fetal tissues) can occur and may lead to fetal death. Sometimes, the hydrops disappears and most of these babies will be normal. Rarely, a baby is born unable to make red blood cells and will need transfusions.

***I had fifth disease when I was 10 weeks pregnant. Are there any tests I can have done to see if my baby is OK?***

An ultrasound (sound wave pictures of the fetus) can tell whether the fetus has hydrops and can look at the amount of amniotic fluid around the baby. A series of ultrasounds for several months after the maternal infection may be helpful. Other methods for detecting fetal problems are also being explored.

***Are there any treatments available?***

At this time there are no vaccines or medications available to prevent or treat maternal fifth disease. Frequent ultrasounds to detect hydrops are recommended when a mother tests positive to fifth disease. When a fetus develops severe anemia and hydrops in the second and third trimester, fetal blood transfusions have successfully been done. If you are in your third trimester there may be consideration of an early delivery if your baby is showing signs of hydrops.

***My dog has a parvovirus infection. Can I catch it from him?***

No. There are many types of parvoviruses. Each type is species-specific, meaning that dog (canine) parvoviruses infect only dogs, cat (feline) parvoviruses infect only cats, and human parvoviruses infect only humans.

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***If you have questions about the information on this fact sheet or other exposures during pregnancy, call OTIS at 1-866-626-6847.***