

# Fifth Disease (Parvovirus B19)



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Fifth disease, also called erythema infectiosum, is usually not a serious infection. Its most notable symptom is a bright red patch or rash on your child's cheeks. It is caused by a virus called parvovirus B19 and can be spread from one person to another through droplets or secretions (eg, saliva, sputum). It can also be passed from a pregnant woman to her fetus. The virus can cause serious illness in a fetus or in any child who has a certain type of anemia (low red blood cell count) such as sickle cell anemia.

Outbreaks of parvovirus B19 infections occur from time to time in elementary and middle schools during the late winter and early spring months.

## Symptoms

In the initial stages of fifth disease, your child may develop mild cold-like symptoms including a stuffy or runny nose, sore throat, mild fever, muscle soreness, itching, fatigue, and headaches. Less commonly, your child may experience aches in the knees or wrists.

After 7 to 10 days of these first symptoms, the distinctive rash of fifth disease may appear. It typically starts on the face, giving the child a "slapped cheek" appearance. A slightly raised rash in a lacelike pattern may develop on the torso and then spread to the arms, buttocks, and thighs. Five to 10 days later, the rash will tend to fade. It may reappear briefly weeks or months later, especially when your youngster becomes hot while exercising, bathing, or sunbathing.

Parvovirus infections can make sickle cell anemia and other hemolytic anemias, much worse. This complication may lead to an aplastic crisis in which blood counts drop to dangerously low levels. This can happen to the fetus when a pregnant woman has a parvovirus infection. The fetus can develop heart failure related to the low blood counts. This condition is called *hydrops fetalis* and can cause fetal death. Transfusions are often needed in the fetus or child with aplastic crisis.

The incubation period from exposure to the virus to the beginning of symptoms usually ranges from 4 to 14 days. The rash appears 2 to 3 weeks after your child becomes infected. Once the rash is present, your youngster will no longer be contagious.

## When to call the doctor

If your child's symptoms seem to get worse with time or if she develops joint swelling, contact your pediatrician. If your child has sickle cell disease, contact your doctor whenever your child gets a fever or seems especially pale.

## Diagnosis

Your pediatrician will diagnose fifth disease by examining the rash, which has a distinctive look. In some cases, your doctor will conduct a blood test that can detect antibodies to parvovirus B19.

Let your pediatrician know about any medications your child may be taking because the rash associated with fifth disease can look like rashes that are side effects of certain drugs.

## Treatment

Most children with fifth disease are treated only with symptomatic care to make them feel more comfortable. If a fever is present, your pediatrician may recommend acetaminophen to lower the temperature as well as to reduce the intensity of any aches and pains that are part of the illness. Your pediatrician also may advise using antihistamines to relieve any itching associated with the rash.

## Prognosis

Most children infected with parvovirus B19 have only a mild illness that goes away on its own. However, children with blood disorders such as sickle cell anemia or a weakened immune system can become seriously ill if they develop fifth disease and should be seen by a doctor immediately. The infection can also be serious if it is contracted by pregnant women. Fifth disease can result in serious complications such as damage to the fetus, miscarriages, or stillbirths.

## Prevention

To reduce the risk of spreading fifth disease, good hygiene is important, including frequent hand washing.

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