

# Fifth Disease

Fifth disease is a common childhood disease, caused by infection with parvovirus B19. The main symptom is a rash, sometimes accompanied by other symptoms such as fever. Fifth disease is usually mild and clears up without treatment. In healthy children, complications of parvovirus B19 infection are rare.

## What is fifth disease?

Fifth disease (sometimes called *erythema infectiosum*) has long been known as a common childhood infection. (It got its unusual name because it was listed fifth in an old classification of childhood rashes.) However, it's only in the past two decades that the true cause of fifth disease has been recognized: infection with a virus called parvovirus B19.

Fifth disease is usually a mild illness that clears up in a week or so. By the time your child develops the typical rash of fifth disease, he or she probably isn't contagious anymore. Once your child has been infected with parvovirus B19, he or she will be immune for life. Fifth disease can be more dangerous in children who have other diseases, such as sickle cell anemia or human immunodeficiency (HIV) disease. Parvovirus B19 infection can also be more serious in pregnant women.

## What does it look like?

The main symptom of fifth disease is a typical rash. The rash may not look exactly the same in every child, however.

- Usually the disease starts with a bright red rash on the face, sometimes described as a “slapped-cheek” rash.
- The rash may rapidly spread to your child's body, arms, and legs.
- As the rash begins to clear up, it may have a fine, “lacy” appearance—it looks like “squiggly” lines on your child's skin.
- The rash may get worse if your child is exposed to sunlight or heat or from excessive exercise or stress.
- The rash usually clears up within 7 to 10 days but sometimes takes up to 3 weeks to go away completely. It may clear up and reappear.

Besides rash, other symptoms of fifth disease may include:

- A mild illness, like a cold, with a low-grade fever and headache. This often happens right before the rash appears.
- The rash may itch a little, especially in older children.

- Sometimes, pain and swelling may develop in the joints, such as the hands, wrists, and knees. This is more common in older teens and adults than in younger children with fifth disease. Females are more likely than males to have joint pain.

## What causes fifth disease?

- Fifth disease is caused by infection with parvovirus B19, a common virus that spreads easily from one person to another. If one person in your home is infected, the chances of spreading the infection to others are about 50–50. However, not all people who are infected with parvovirus B19 develop fifth disease.
- Fifth disease develops 1 to 4 weeks after the virus is spread. Once your child has been infected with parvovirus B19, he or she will likely be protected against future infection with this virus.

## What are some possible complications of fifth disease?

- Complications of fifth disease are rare in healthy children, especially younger children. Some people develop other unusual rashes.
- Older children and adults with fifth disease are more likely to develop joint pain and swelling. The joint pain usually clears up in a few weeks. Some patients develop more lasting arthritis.
- Parvovirus B19 interferes with the production and survival of red blood cells. In patients with certain types of anemia (such as sickle cell anemia), this can lead to a complication called aplastic crisis, in which the body is not making enough new red blood cells.
- Parvovirus B19 disease is also more serious in children with conditions that interfere with the immune system, such as HIV disease or cancer chemotherapy.
- In pregnant women, parvovirus B19 may pose a risk to the developing fetus. If you are pregnant and your child has fifth disease, mention this situation to your obstetrician.

## What puts your child at risk of fifth disease?

- Parvovirus B19 is very common. About one half of people are infected during childhood or adolescence.
- Besides exposure to an infected person, there are no specific risk factors for parvovirus B19.
- Parvovirus B19 is mainly contagious before the rash occurs. By the time your child develops the typical rash of fifth disease, he or she can probably no longer spread the virus.

### Can fifth disease be prevented?

There is no specific way to prevent the spread of parvovirus B19.

### How is fifth disease treated?

- No specific treatment is needed for fifth disease.
- Fifth disease is contagious only before the rash develops. Keeping your child home from school or day care does not prevent the spread of parvovirus B19.

- Pain relievers (such as acetaminophen or ibuprofen) may be helpful, especially if your child has joint pain.

### When should I call your office?

Call our office if:

- Your child's rash and other symptoms of fifth disease don't improve within 7 to 10 days.
- Your child develops joint swelling.
- Your child's symptoms get worse instead of better or if new symptoms develop.