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“Fifth Disease”

www.kidshealth.org

Especially common in kids between the ages of 5 and 15, fifth disease typically produces a distinctive red rash on the face that makes the child appear to have a "slapped cheek." The rash then spreads to the trunk, arms, and legs. Fifth disease is actually just a viral illness that most kids recover from quickly and without complications.

Fifth disease (also called erythema infectiosum) is caused by parvovirus B19. A human virus, parvovirus B19 is **not** the same parvovirus that veterinarians may be concerned about in pets, especially dogs, and it **cannot** be passed from humans to animals or vice versa.

Studies show that although 40% to 60% of adults worldwide have laboratory evidence of a past parvovirus B19 infection, most of these adults can't remember having had symptoms of fifth disease. This leads medical experts to believe that most people with a B19 infection have either very mild symptoms or no symptoms at all.

Fifth disease occurs everywhere in the world. Outbreaks of parvovirus tend to happen in the late winter and early spring, but there may also be sporadic cases of the disease any time throughout the year.

Signs and Symptoms

Fifth disease begins with a low-grade fever, headache, and mild cold-like symptoms (a stuffy or runny nose). These symptoms pass, and the illness seems to be gone until a rash appears a few days later. The bright red rash typically begins on the face. Several days later, the rash spreads and red blotches (usually lighter in color) extend down to the trunk, arms, and legs. The rash usually spares the palms of the hands and soles of the feet. As the centers of the blotches begin to clear, the rash takes on a lacy net-like appearance. Kids younger than 10 years old are most likely to get the rash.

Older kids and adults sometimes complain that the rash itches, but most children with a rash caused by fifth disease do not look sick and no longer have fever. It may take 1 to 3 weeks for the rash to completely clear, and during that time it may seem to worsen until it finally fades away entirely.

Certain stimuli (including sunlight, heat, exercise, and stress) may reactivate the rash until it completely fades. Other symptoms that sometimes occur with fifth disease include swollen glands, red eyes, sore throat, diarrhea, and rarely, rashes that look like blisters or bruises.

In some cases, especially in adults and older teens, an attack of fifth disease may be followed by joint swelling or pain, often in the hands, wrists, knees, or ankles.

Contagiousness

A person with parvovirus infection is most contagious before the rash appears — either during the incubation period (the time between infection and the onset of symptoms) or during the time when he or she has only mild respiratory symptoms. Because the rash of fifth disease is due to an immune reaction (a defense response launched by the body against foreign substances like viruses) that occurs after the infection has passed, a child is usually not contagious once the rash appears.

Parvovirus B19 spreads easily from person to person in fluids from the nose, mouth, and throat of someone with the infection, especially through large droplets from coughs and sneezes.

In households where a child has fifth disease, another family member who hasn't previously had parvovirus B19 has about a 50% chance of also getting the infection. Children with fifth disease may attend childcare or school, since they are no longer contagious. Once infected with parvovirus B19, a person develops immunity to it and won't usually become infected again.

Parvovirus B19 infection during pregnancy may cause problems for the fetus. Some fetuses may develop severe anemia if the mother is infected while pregnant — especially if the infection occurs during the first half of the pregnancy. In some cases, this anemia is so severe that the fetus doesn't survive. Fortunately, about half of all pregnant women are immune from having had a previous infection with parvovirus. Serious problems occur in less than 5% of women who become infected during pregnancy.

Prevention

There is no vaccine for fifth disease, and no real way to prevent spreading the virus. Isolating someone with a fifth disease rash won't prevent spread of the infection because the person usually isn't contagious by that time.

Practicing good hygiene, especially frequent hand washing, is always a good idea since it can help prevent the spread of many infections.

Incubation

The incubation period (the time between infection and the onset of symptoms) for fifth disease ranges from 4 to 28 days, with the average being 16 to 17 days.

Duration

The rash of fifth disease usually lasts 1 to 3 weeks. In a few cases in older kids and adults, joint swelling and pain because of fifth disease have lasted from a few months up to a few years.

Diagnosis

Doctors can usually diagnose fifth disease by the distinctive rash on the face and body. If a child or adult has no telltale rash but has been sick for a while, a doctor may perform blood tests to see if the illness could be caused by parvovirus B19.

Treatment

Fifth disease is caused by a virus, and it cannot be treated with antibiotics used to treat bacterial infections. Although antiviral medicines do exist, there are currently none available that will treat fifth disease. In most cases, this is such a mild illness that no medicine is necessary.

Usually, kids with fifth disease feel fairly well and need little home treatment other than rest. After the fever and mild cold symptoms have passed, there may be little to treat except any discomfort from the rash itself. If your child has itching from the rash of fifth disease, ask the doctor for advice about relieving discomfort. The doctor may also recommend acetaminophen for fever or joint pain.

Complications

The majority of kids with fifth disease recover with no complications. By the time the rash appears and while it's present, they usually feel well and are back to their normal activities.

However, some children with weakened immune systems (such as those with AIDS or leukemia) or with certain blood disorders (like sickle cell anemia or hemolytic anemia) may become significantly ill when infected with parvovirus B19. Parvovirus B19 can temporarily slow down or stop the body's production of the oxygen-carrying red blood cells (RBCs), causing anemia.

When a child is healthy, this slowdown of red blood cell production usually goes unnoticed because it doesn't affect overall health. But some kids who are already anemic can become sick if their RBC production is further affected by the virus. The RBC levels may drop dangerously low, affecting the supply of oxygen to the body's tissues.

When to Call the Doctor

Call the doctor if your child develops a rash, especially if the rash is widespread over the body or accompanied by other symptoms.

If you're pregnant and develop a rash or if you've been exposed to someone with fifth disease (or to anyone with an unusual rash), call your obstetrician.