

Parvovirus B19



Parvovirus B19 is a virus that commonly infects humans. Dogs and cats may be immunised against 'parvovirus', but these are animal parvoviruses that do not infect humans.

How parvovirus is spread

Parvovirus B19 infection is spread when an infected person talks, coughs or sneezes small droplets containing infectious agents into the air. The droplets in the air may be breathed in by those nearby. Infection may be spread by contact with hands, tissues and other articles soiled by infected nose and throat discharges.

Infection may also be transmitted from a woman to her fetus.

Once the rash appears, the person is no longer infectious. An exception to this is in infected people with immune suppression, who may remain infectious for months.

Signs and symptoms

Children

The most common illness caused by parvovirus B19 is 'fifth disease', a mild rash illness that occurs most often in children. About 20% of infected children will have no symptoms at all. In others, early in the infection there may be mild cold-like symptoms, then 2 to 5 days later, the child typically develops a 'slapped cheek' rash on the face (see image) and a lacy red rash on the trunk and limbs.

The child usually is not very ill, though the rash may occasionally be itchy. The rash disappears after 7 to 10 days, although it may come and go for several weeks, often in response to heat.

On recovery, the child develops lasting immunity and is protected against future infection.



Parvovirus (Slapped Cheek or Fifth Disease)
Image courtesy Public Health Image Library (PHIL)
Department of Health and Human Services Centers
for Disease Control and Prevention (CDC-USA)

Adults and pregnant women

Adults may also be infected with parvovirus B19 and may have no symptoms, or may have the typical rash of fifth disease, joint pain or swelling, or both. The joints most frequently affected are the hands, wrists and knees, usually on both sides of the body and usually getting better in a week or two, though sometimes the pain and swelling may last several months. At least 50% of adults have previously been infected with parvovirus B19 and have developed immunity, so they will not get the infection again.

Infection by parvovirus B19 generally causes only a mild illness. However, if a pregnant woman is infected, the infection may be transmitted to the fetus. In less than 5% of cases, parvovirus B19 infection may cause the unborn baby to have severe anaemia (low blood count) and the woman may have a miscarriage. This occurs more commonly if infection occurs during the first half of pregnancy. There is no evidence that parvovirus B19 infection causes birth defects or mental retardation. Still, a pregnant woman who has been exposed to parvovirus B19



should seek the advice of the doctor managing her pregnancy, although there is no universally recommended approach to monitoring of a woman in this situation.

Infection in people with a weakened immune system, or some blood disorders, can result in prolonged infection and severe anaemia.

Diagnosis

Parvovirus B19 infection is diagnosed by a blood test. The blood test can also be used to test for immunity, to see if the person has had the infection in the past.

Incubation period

(time between becoming infected and developing symptoms)

4 to 14 days from exposure, though may be up to 20 days.

Infectious period

(time during which an infected person can infect others)

Most people with parvovirus B19 infection are not infectious once the rash appears. Immune suppressed people with parvovirus B19 infection may be infectious for long periods.

Treatment

There is no antiviral drug for treatment of parvovirus B19 infection.

Prevention

- > Exclusion from childcare, preschool, school or work is not necessary as people are infectious before they develop the rash.
- > There is no vaccine for prevention of parvovirus B19 infection.
- > Wash hands regularly.
- > Clean surfaces contaminated by discharges from the nose or throat.
- > Pregnant women who are concerned they are at risk of exposure to parvovirus B19 infection (for example, school teachers) can have a blood test to detect evidence of previous infection and therefore immunity. Over 50% of women will already have had the infection and these women and their unborn babies are protected from infection and illness.
- > When there is a known case of parvovirus in a workplace, any pregnant woman in that workplace should consider whether she should continue at work after discussion of options with her family, doctor and employer.

Useful links

Wash, wipe cover website –

www.sahealth.sa.gov.au/washwipecover

SA Health website – www.sahealth.sa.gov.au

> Hand hygiene

You've Got What? 5th Edition

Communicable Disease Control Branch

Telephone: 1300 232 272 Email: HealthCommunicableDiseases@sa.gov.au

The SA Health Disclaimer for this resource is located at www.sahealth.sa.gov.au/youvegotwhat



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