

## Parvovirus B19

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### Description:

*Parvovirus B19 infection, also known as fifth disease, erythema infectiosum or slapped cheek syndrome, is a viral infection that only affects humans. Outbreaks of the infection are common in preschool and young school aged children. Studies have shown that more than 50% of adults have been infected with parvovirus B19 at some time and therefore have lifelong immunity. Parvovirus B19 is not the same condition as dog 'parvo'.*

### Symptoms:

Ill children typically have a "slapped-cheek" rash on the face. There is also often a lacy red rash on the body, arms and legs, which may occasionally be itchy. This rash fades but can reappear over the next few weeks on exposure to sunlight or heat (eg. in the bath). Children are not usually very ill and some may have no symptoms at all.

In adults who are infected there may be no rash, or it may not be like that typically seen in children. Adults may get joint pain or swelling, which usually settles in a week or two but can last longer. There may be no symptoms at all.

The time from contact with the virus to the development of symptoms varies from 4 to 20 days.

A doctor can often diagnose fifth disease by seeing the typical rash during a physical examination. In cases in which it is important to confirm the diagnosis, a blood test can be done to look for antibodies to parvovirus B19.

### Transmission:

The virus is spread by exposure to respiratory droplets from the nose and throat of infected people, usually before the rash appears. Infected people are probably not contagious by the time the rash develops.

### Treatment:

Usually no treatment is required.

### Health Outcome:

Fifth disease is usually a mild illness that resolves on its own in healthy children and adults. Joint pain and swelling in adults usually resolve without long-term disability.

About 50% of pregnant women are already immune to parvovirus B19, and these women and their babies are protected from infection and illness. Most susceptible (non-immune) women who are infected with parvovirus B19 experience only mild illness with no problems for their unborn baby. There is virtually no risk if infection occurs in the second half of pregnancy. However, up to 10% of parvovirus B19 infections in pregnant women in the first half of pregnancy can result in severe anaemia and miscarriage. There is no evidence that parvovirus B19 infection causes birth defects or mental retardation.

### Prevention:

There is no vaccine or medicine that prevents parvovirus B19 infection. Frequent hand washing is recommended as a practical method to reduce the spread of parvovirus.

Excluding children or adults with parvovirus B19 infection from work, child care centres, schools, or other settings is unlikely to prevent spread, since people are contagious before they develop the characteristic rash.

Susceptible pregnant women should not routinely be excluded from a workplace where a parvovirus B19 outbreak is occurring, as exposure may have already occurred and the risk to the unborn baby is low. Whether to stay away from a workplace where there are cases of parvovirus B19 is a personal decision for a woman to make, after discussion with her family, doctor, and employer.

### Help and Assistance

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For further information please contact your local doctor, community health centre or nearest public health unit.

### Other Resources

More information is available on Britain's National Health Service [website](#).

### References

Heymann D. (Ed). 2008. *Control of Communicable Diseases Manual*, 19th edition. Washington, DC: American Public Health Association.