

FIFTH DISEASE (parvovirus B19, erythema infectiosum)

Incubation, Signs and Symptoms

Incubation Period: 4-14 days but can be as long as 28 days. Rash and joint symptoms occur 2-3 weeks after infection.

Signs and Symptoms: Marked redness of cheeks ("slapped-face" appearance) that is often followed by a red, lace-like rash on the trunk and body. The rash can fluctuate in intensity and recur with exposure to sunlight or changes in the environmental temperature for weeks to months, although not all infected persons have a rash. Child may have a slight fever or feel unwell. It is estimated that about 50% of adults have had previous infection and are immune. In adults the rash is often absent, but arthritis lasting for days to months may occur. In 25% of infected adults, the person is asymptomatic (without any symptoms). Immunodeficient persons with infection may experience chronic anemia.

Methods of Transmission

Primarily spreads by direct contact, droplet, or airborne secretions. The virus can also spread vertically from mother to fetus.

Minimum Control Measures

Communicable Period: *The exact period is unknown, but children are thought to be most infectious 7–10 days before the rash breaks out; the disease is not communicable after the rash appears.* Persons with aplastic crises (absence of normal cell development) are communicable up to one week after the onset of symptoms. Immunosuppressed people may be infectious for months to years.

Control: **EXCLUDE the child who has a fever or feels unwell. Otherwise, exclusion is not generally practical.** Proper hand washing and disposal of tissues can help to lessen transmission.

Other Information

In people with chronic red blood cell disorders, such as sickle-cell disease, infection may result in severe anemia. Infection has also been associated with arthritis in adults. *Some pregnant women have miscarried after becoming infected with parvovirus B19. However, the risk for this occurring is relatively low. Pregnant women who subsequently find that they have been in contact with children during the incubation period (4-20 days before signs or symptoms) may want to follow up with their physicians to discuss the option of serological testing to determine their immune status. Although women who work primarily with children are at increased risk of infection, a routine policy to exclude pregnant women from the workplace when parvovirus B19 is occurring is not recommended.* Occupational settings are not the only place where transmission may occur. Prevention methods to avoid infection include proper hand washing, teaching children to cover their mouth when coughing, and disposal of tissues for respiratory secretions.