



*A Union of Professionals*

**Health and Safety Program**

## **FIFTH DISEASE**

### **What Is Fifth Disease and What Are the Symptoms?**

Fifth disease, or erythema infectiosum, is a mild childhood illness caused by the human parvovirus B19. Its symptoms include a facial rash or "slapped cheek" appearance and a lacelike rash on the trunk and extremities. The rash may appear and reappear over several weeks. Temporary arthritic pain or swelling of joints in the hands, knees and wrists may also occur without the characteristic rash. The disease occurs somewhere in the U.S. every year and sweeps through communities periodically.

### **How Is Fifth Disease Transmitted?**

It is thought to be transmitted through respiratory secretions or objects contaminated by an infected person. However, by the time the rash appears, the child with fifth disease is no longer infectious and does not need to be excluded from school.

### **What Are the Dangers of Fifth Disease?**

Fifth disease is of concern to teachers, school and hospital nurses and other professionals and paraprofessionals who deal with large numbers of children. The greatest danger is that infection in a pregnant woman may result in death of the fetus. Fortunately, there is no evidence that maternal infection results in defects or abnormalities in the fetus.

According to the Centers for Disease Control (CDC), the risk of fetal death is small. However, it is important to bear in mind that the CDC has not conducted extensive studies of the disease and the actual risk is unknown at this time. Therefore, pregnant women and those who might become pregnant should take measures to avoid infection.

### **Additional Risks of "B19 Infection"**

Human parvovirus B19 also causes serious complications of infection for persons with chronic hemolytic (due to red blood cell destruction) anemias. It causes a Transient Aplastic Crisis (TAC) in which red blood cell production is reduced or ceases. In addition, it may lead to chronic anemia in persons with congenital or acquired immune deficiency. Persons with these conditions should consult a physician immediately if exposure is suspected and if symptoms (such as pallor, weakness, and lethargy) develop.

### **How May Infection Be Prevented?**

Prior infection usually confers protective immunity. Presently, there is no vaccine to prevent Fifth Disease, although a "candidate" is in the research stage.

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When outbreaks of Fifth Disease occur in situations in which prolonged, close-contact exposures occur (for example, at home, in schools or in day-care centers), options for preventing transmission are limited. Hand washing and decontaminating toys and environmental surfaces are recommended as practical and probably effective measures to decrease transmission of the virus.

### **Healthcare Settings**

Guidelines for isolation precautions in hospitals have been published for Fifth Disease, but recent information suggests that these guidelines should be modified. Most patients with Fifth Disease are past their period of infectiousness and do not present a risk for further transmission; thus, isolation precautions are not indicated. However, there is a risk for nosocomial transmission of B19 from patients with TAC and from immunodeficient patients with chronic B19 infection. These patients should be considered infectious and placed on isolation precautions for the duration of their illness or until the infection has cleared. Nosocomial transmission of B19 has been associated with one case of TAC. Transmission of B19 has occurred in medical research laboratories.

Patients with TAC or chronic B19 infection should be admitted to private rooms. Gloves should be worn by persons likely to touch infective material such as respiratory secretions, and gowns should be worn when soiling is anticipated (contact isolation). Hands should be washed after patient or potentially contaminated articles are touched and before care is provided to another patient. B19-infected patients may share a room with another B19-infected patient unless sharing is contraindicated by another infection or condition.

Healthcare workers should be advised that they are at risk of B19 infection after exposure in the hospital or in the community and that there may be a risk for further transmission to patients. Routine infection-control practices should reduce the risk of transmission.

Personnel who are pregnant or who might become pregnant should know about potential risks to the fetus from B19 infection and about preventive measures that may reduce those risks.

### **What Can Unions Do?**

Unions should see that all healthcare employees are advised about the risk of acquiring and transmitting infection and about who is at risk for serious complications. They should negotiate a policy with management that would allow pregnant women and others who are at risk to transfer temporarily to another area or to take leave (not charged against their sick leave) during the period of the outbreak.

**For more information, contact the AFT Healthcare Occupational Safety and Health Program at 202/393-5674.**