



ERYTHEMA INFECTIOSUM

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Erythema infectiosum (**Fifth disease**) is caused by a virus, specifically parvovirus B19. It is relatively common and mildly contagious, being spread by respiratory droplets. Viral shedding occurs before the rash appears; therefore, isolation is not necessary at the time the rash is apparent. It usually affects children between 5 and 14 years of age. It is common not to have symptoms with infection. This infection can cause severe complications in pregnant women, individuals with hemolytic anemia, and those who are immunocompromised. The incubation period is 13 to 18 days. Symptoms are usually mild or absent. Itching, low-grade fever, malaise, and sore throat precede the rash in approximately 10% of cases.

There are three eruptive stages of this disease, the first being facial erythema (redness) where one sees red papules on the cheeks which rapidly group together in hours, forming red, slightly swollen, warm, plaques on both cheeks and spare the nose and mouth. The "slapped cheek" appearance fades in 4 days. The second stage is net like pattern which begins in 1 – 4 days and one sees red marks on the arms and later the trunk. This evolves into a reticulate or lacy pattern. The third stage is the recurrent stage and is invisible except when exposed to sunlight or exposed to heat.

Women who are exposed to the parvovirus may develop itching and arthritis. The itching can be mild to intense and is localized or generalized. In most cases a nonspecific eruption occurs across both cheeks. Women develop moderately severe, symmetric polyarthritis that evolves to a form that is often indistinguishable from rheumatoid arthritis. It lasts 2 weeks to 4 years, usually involving the knees and other joints.

Both male and female children can develop joint symptoms. Most cases have acute arthritis of brief duration. Two patterns are seen: polyarticular, affecting more than five joints; and pauciarticular, affecting four or fewer joints. Large joints are affected more often than small joints with the knee being the most common joint involved. Laboratory findings are normal. The duration of joint symptoms is usually less than 4 months, but sometimes can last for 13 months.

In pregnant women, infection can lead to fetal infection. Fetal infection can cause severe anemia, congestive heart failure, generalized edema, and death. There is a risk of fetal death in about 10% of cases. However, congenital malformations do not occur.

Parents need only to be assured that this unusual eruption will fade and does not require treatment. Most health departments do not recommend exclusion from school for children with fifth disease.

This information has been provided to you compliments of the American Osteopathic College of Dermatology and your physician.

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