



# MEASLES

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Measles, also known as rubeola, is a worldwide disease that occurs primarily in children. Measles is usually a self-limiting disease manifesting with a prodrome period and a characteristic rash. The peak incidence of measles usually occurs in March or April and is a disease of winter and spring in temperate climates. Since the administration of the live attenuated vaccine, the occurrence of the measles virus has dropped significantly.

Measles are spread by respiratory droplets, in which the virus can survive for at least 2 hours as droplets, and has an incubation period of 9 to 12 days. There are three distinct phases: 1) incubation period; 2) prodromal phase characterized by fever, malaise, conjunctivitis, and upper respiratory symptoms such as cough, nasal discharge, and sneezing which persists for 3 to 4 days; and 3) exanthem which begins as a rash on the scalp and behind the ears. By the second day of the rash, there is no detection of the virus in pharyngeal secretions. The rash begins to spread down the neck, trunk, and extremities. By day three, the whole body is covered. Koplik's spots, white bumps on a red base in the mouth, are pathognomonic and usually appear in the mouth 24 to 48 hours before the onset of the rash and may persist for 2 to 3 days. After 6 or 7 days, the rash clears and the fever subsides.

The diagnosis of measles is usually delayed due to the nonspecific initial symptoms. Clinical diagnosis is most commonly made at the onset of the rash. Culturing the measles virus in various secretions is usually difficult.

Some complications of measles include otitis media, pneumonia, diarrhea, encephalitis (1 of every 800 patients), and thrombocytopenic purpura. If infection occurs during a pregnancy, fetal death can occur.

Administration of high doses of vitamin A will reduce the morbidity and mortality of hospitalized children with measles. Otherwise, treatment is symptomatic with bed rest, analgesics, and antipyretics.

Currently, immunizations are highly effective. It has been shown in recent years that 5 percent of children fail to respond to initial dose and because of this, a two-dose immunization schedule has been adopted. In the US, the initial dose is given at 15 months, and a second dose is given at 5 years of age. When given up to five days after exposure, vaccination may prevent infection. A faint rash may occur 7 to 10 days after immunization. Very young infants, under 4 months, have protection from acquired maternal measles antibody.

Measles is preventable. The incidence of reported measles has declined by greater than 99% since the development of the vaccine. Guidelines for using the highly effective and safe live attenuated measles vaccine are continuing to evolve.

There are a variety of factors that contribute to the prognosis of the measles infection including age of the patient, nutritional status, and general health. Approximately 500 deaths were attributed to measles each year in the US prior to widespread immunizations. It is important that one adhere to the two-dose vaccination schedule, as it has proven to decrease the morbidity and mortality in this country.

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

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