Measles

- Fever for 2-4 days
- Red, watery eyes
- Runny nose and cough
- Blotchy, red rash covers body

Koplik's spots found on inner buccal surface of mouth

An Avoidable Viral Infection in Children

Measles is a viral disease caused by the virus of the same name. It is virtually nonexistent in the United States today as a result of an effective vaccination campaign that began in the early 1960s. Measles remains a serious disease in developing countries that do not offer the benefit of routine vaccination. The measles virus is very contagious. It is transmitted by droplets in the air or on surfaces by an infected person who sneezes, coughs, or even breathes in a room with a person who is not immune.

Almost everyone exposed to someone with the measles will develop the disease themselves within 1 to 2 weeks after exposure unless they are protected by vaccination. The measles vaccine is most often given to children in the U.S. as part of a series of childhood vaccinations at 12 to 15 months, and then repeated at 4 to 6 years. The measles vaccine is typically part of a combination vaccine (MMRV) that also includes protection against mumps, rubella (German measles), and varicella (chickenpox).

Initial symptoms include fever, sore throat, nasal congestion, cough, fatigue, and red, watery eyes. After a few days, tiny white spots may appear inside the mouth, and shortly afterward, the characteristic body rash begins at the head and spreads to the feet. The measles usually last a total of 2 weeks. A person infected with the measles virus is contagious for several days before and after the rash appears.

There is no specific treatment for measles. Rest, plenty of fluids, acetaminophen or a nonsteroidal anti-inflammatory drug (NSAID) for fever, and a decongestant and/or cough medication are all used to help ease symptoms. Aspirin should not be used to treat children or teens with measles (or any viral disease) to avoid the development of Reye's syndrome.

Measles can lead to various complications, including ear infections, pneumonia, severe diarrhea, and an inflammation of the brain known as encephalitis. Further complications that can result from the measles infection are deafness, seizures, blindness, mental retardation, and even death.

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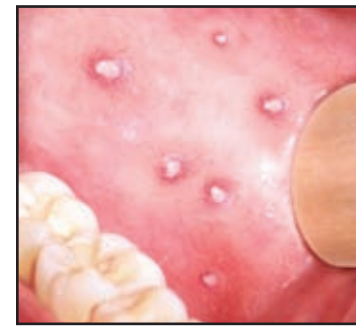
Vaccination Is the Key to Measles Prevention



Koplik's spots may appear inside the mouth of a patient with measles.

Before the measles vaccine was available in the U.S., there were more than half a million cases in this country each year. Although the incidence of measles in the U.S. is typically under 100 cases each year as a result of an effective vaccination program that began in the 1960s, there are millions of cases of the disease every year throughout the world. Those few cases of measles in the U.S. are typically seen in people who were not vaccinated or who entered the country from overseas.

Who Should Be Vaccinated? Vaccination against the measles is a safe and effective form of prevention and is given routinely in the U.S. to children at 12 to 15 months of age, then repeated with a booster at 4 to 6 years of age. If a measles outbreak occurs, children can receive the vaccine at age 6 to 11 months in addition to the routine measles vaccinations. Adults should also be vaccinated against the measles virus if they were born after 1956 and have never been vaccinated or had the measles infection. Typically, the measles vaccine is given with the mumps, rubella, and varicella vaccines in a combination product called the *MMRV vaccine*. People who have a serious allergy to neomycin or gelatin or have had a serious reaction to a previous dose of measles vaccine should not receive the vaccine. Women should not receive the vaccine while they are pregnant. Additionally, people with compromised immune systems, such as those with cancer, HIV/AIDS, or blood disorders, or who are taking medications that suppress the immune system, such as cancer drugs or steroids, should check with their doctors before being vaccinated. Receiving the measles vaccine is much safer than suffering from the measles, although there is a chance of a fever, mild rash, or stiff joints after vaccination. Very rarely, the vaccine has been linked to seizures, low platelet count, or allergic reactions. A doctor should be notified if signs of an allergic reaction or a high fever, weakness, or unusual behavior occurs after a measles vaccination.

Symptoms of Infection: The first symptoms of the measles infection are fever, sore throat, runny nose, cough, fatigue, and red, watery eyes. After a few days, tiny white spots with red centers (known as *Koplik's spots*) may appear inside the mouth, and shortly afterward, a reddish-brown rash begins at the scalp and quickly spreads to the trunk, arms, legs, hands, and feet. The symptoms of measles usually last a total of 2 weeks. A person infected with the measles is contagious several days before the rash appears and continues to be contagious several days afterward.

Easing Symptoms and Complications: Treatment for the measles is focused on easing its symptoms, including fever, sore throat, cough, and nasal congestion. Nonprescription medications such as acetaminophen, ibuprofen, throat lozenges, cough syrups, and decongestants are all appropriate treatments. Aspirin should be avoided in children and teens with any viral infection due to the potential risk of developing Reye's syndrome. Plenty of bed rest and fluids are also an important part of treating measles.

Complications of the measles include middle ear infections, diarrhea, and pneumonia. Rarely, a serious complication of the measles is encephalitis, or an inflammation of the brain tissue that can result in deafness or brain damage. Measles can be fatal, especially in young children. In underdeveloped countries around the world, measles kills hundreds of thousands of children each year. Vitamin A has been used to lessen the complications of measles and is used in young children who are hospitalized with this condition. Poor nutrition and a lack of vitamin A in children of developing countries are likely risk factors for the development of the complications of measles.

If you have questions about medications used to treat the symptoms of measles or any viral infection, your pharmacist can help.