

Infection Prevention and You



Measles (rubeola): A vaccine-preventable disease

Measles, also called rubeola, is a serious respiratory illness caused by the measles virus. It is a highly contagious virus that lives in the nose and throat mucus of an infected person. Measles can be spread even if the infected person is no longer in the room.

How is measles spread?

The measles virus is spread through the air, or by direct contact, by infectious droplets. The infected droplets may also land on a surface, where they remain contagious for several hours. You can contract the virus by touching these surfaces and then putting your fingers in your mouth or nose or rubbing your eyes. The measles virus can remain in the air for up to two hours after a person with measles has occupied the area.

How long can an infected person carry measles?

A person can spread the measles virus from just before the onset of the fever (usually four days prior to rash onset) to four days after the appearance of the rash. Immunocompromised patients may spread the virus for the duration of their illness.

Who gets measles?

People of any age can get measles. Measles is more severe in young children and adults. Once a person has had measles, they cannot get it again.

What are the symptoms of measles?

Fever is one of the earliest symptoms, and can reach as high as 104°F; it lasts about a week. As the virus continues to spread, some individuals become sensitive to light, referred to as photophobia.

Measles symptoms usually appear in two stages:

- In the first stage, most people have a fever, runny nose, redness of the eyes, and cough.
- The second stage can begin anywhere between days three to seven when a red blotchy rash begins to appear on the face and spreads over the entire body. The rash generally lasts five to six days. Small white spots, called Koplik spots, also may be seen on the gums and inside of the cheeks.

Symptoms may begin within 7-21 days after exposure, with an average of 10 days after exposure. The rash usually appears within 14 days of exposure.

What are the complications associated with measles?

Middle ear infections, pneumonia, croup, and diarrhea commonly occur in young children. Encephalitis (inflammation of the brain) can occur in a small percentage of cases. Death due to measles is very rare in the U.S. One or two deaths occur for every 1,000 cases.

What is the treatment for measles?

There is no specific treatment for measles. Treatment focuses on relief of symptoms as the body fights the virus. This may include fluids and medications to control fever or pain. Because measles is a virus, antibiotics are not effective against the virus, but may be prescribed to treat secondary infections from bacteria.

How can measles be prevented?

Vaccination is the best way to prevent measles. Two doses of measles vaccine are recommended for all children. The first dose of the measles, mumps, rubella vaccine (MMR) should be given at 12–15 months of age and the second

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dose before a child enters kindergarten (4–6 years of age). Two doses of MMR vaccine are about 97% effective at preventing measles; one dose is about 93% effective.

There are additional recommendations for adults and those who are traveling outside of the U.S., including infants as young as 6 months of age.

When to see a healthcare provider

Call your healthcare provider if you think you may have been exposed to measles or if you have symptoms corresponding to measles. Follow the instructions given by your health department for if you have been exposed and/or are currently being tested. If you have not received a measles vaccine, and you come into contact with an infected person, receiving MMR within 72 hours after exposure may be effective in preventing infection.

Resources

CDC—Measles www.cdc.gov/measles/about/index.html

CDC—Vaccines and Preventable Diseases: www.cdc.gov/vaccines/vpd/mmr/public/index.html

Immunization Action Coalition—Measles, Mumps, and Rubella: www.immunize.org/askexperts/experts_mmr.asp

NFID—Measles: <http://www.nfid.org/idinfo/measles>

WHO—Measles Fact Sheet: www.who.int/en/news-room/fact-sheets/detail/measles

