

DISPATCH



MEASLES

What Is It?

Measles, also called rubeola, is a highly contagious disease caused by a virus.

How can you get it?

Measles is spread by “airborne transmission” of droplets or small particles that remain infective over time and distance. So exposure can occur with close contact to an infected person who coughs or sneezes but also the virus may travel over long distances by air currents and be inhaled by individuals who have not had face-to-face contact with (or even been in the same room with) the infectious individual. Patients with measles are contagious for 4 days before to 4 days after the rash appears. 90% of the people close to a contagious patient will also become infected if not already immune. The virus can live on infected surfaces for up to 2 hours and touching a surface contaminated with viral particles and then touching one’s nose or mouth can also result in infection.

What are the symptoms?

The symptoms of measles begin about 7-14 days after exposure to the virus and include:

- Fever
- Cough
- Runny nose
- Sore throat
- Conjunctivitis (red eyes)
- 3-5 days after these symptoms, a red rash starts on the face and spreads down the back and trunk, as well as to the arms, hands, legs, and feet.

Photos of patients with measles can be viewed at:

<http://www.cdc.gov/measles/about/photos.html>

The **complications** of measles may include: ear infection, diarrhea, pneumonia, and/or inflammation of the brain (encephalitis). One or two of every 1000 children who get measles will die from it.



How do you prevent it?

Measles is now rare in the US; in 2009, only 71 cases of measles were reported. This is due to the success of vaccination programs. The measles vaccine (MMR) also vaccinates against mumps and rubella and is a routine childhood immunization. The MMR vaccine **does not cause autism**. Currently two doses are recommended in childhood.

According to the Healthcare Personnel Vaccination Recommendations PDF at <http://www.cdc.gov/vaccines/vpd-vac/measles/vacc-in-short.htm>, healthcare personnel born in 1957 or later who do not have evidence of prior vaccination should be tested for immunity. If not immune, vaccination with 2 doses of MMR, 4 weeks apart, is recommended. This document provides additional information for healthcare personnel born prior to 1957.

In addition to vaccination, you can help prevent the spread of measles by:

- Ventilation since the measles virus spreads by the airborne route
- Preventing contamination and performing decontamination surfaces
- Using Universal Precautions
 - Assume patients with respiratory symptoms are contagious and provide masks for symptomatic patients
 - Limit the number of crew members having direct patient contact
 - Hand hygiene (wash with soap and water or using an alcohol based hand rub)
 - Personal protective equipment (PPE) (gloves, gowns, NIOSH-certified respirators that are N95 or higher, and goggles that offer mouth, nose and eye protection). , **IAFF recommends P100 respirators** for all patients with respiratory symptoms such as cough

What should you do if you believe you have been exposed to measles?

If you are immune, contact your infection control officer to document a work-related exposure. If you are not immune, contact the infection control officer and healthcare provider to discuss possible testing and treatment. If given within 72 hours of exposure to measles, measles vaccine may provide some protection. In most settings, postexposure vaccination is preferable to use of immune globulin. Immune globulin can be administered within 6 days of exposure and is indicated for susceptible household or other close contacts of patients with measles, particularly contacts younger than 1 year of age,

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pregnant women and immunocompromised persons, for whom risk of complications is highest.

The CDC has specific guidance for outbreaks in medical settings: all personnel born during or after 1957 should receive two doses of MMR vaccine, unless they have documentation of measles immunity. Personnel born before 1957 without documentation of measles immunity should receive one dose of MMR. Serologic screening of healthcare workers during an outbreak to determine measles immunity is not generally recommended, because stopping measles transmission requires the rapid vaccination of susceptible healthcare workers.

Susceptible personnel who have been exposed to measles should be relieved from patient contact and excluded from the facility from the 5th to the 21st day after exposure, regardless of whether they received vaccine or immune globulin after the exposure. Personnel who become ill should be relieved from all patient contact and excluded from the facility for 4 days after they develop rash.

For More Information and Frequently Asked Questions (FAQs), Check Out:

- Centers for Disease Control and Prevention (CDC): <http://www.cdc.gov/measles/index.html>
 - CDC, Measles Surveillance: <http://www.cdc.gov/vaccines/pubs/surv-manual/chpt07-measles.html>
 - CDC, Epidemiology and Prevention of Measles: <http://www.cdc.gov/vaccines/pubs/pinkbook/meas.html>
- Public Health Agency of Canada (PHAC): <http://www.phac-aspc.gc.ca/im/vpd-mev/measles-rougeole-eng.php>