MEASLES

What You Need to Know

OAKLAND COUNTY MICHIGAN
HEALTH DIVISION

What is measles?

Measles (also called rubeola) is a highly contagious virus that can cause serious health complications, especially in children younger than 5 years old, pregnant women, and people with compromised immune systems. About 1 in 5 people in the U.S. who get measles will be hospitalized.

Who can get measles?

Anyone who is not protected against measles is at risk. You have immunity through vaccinations or if you had measles and recovered. The best protection if you do not have immunity is getting two doses of the MMR vaccine.

How is measles spread?

The virus that causes measles lives in the nose and throat mucus of an infected person. It can spread to others through coughing and sneezing.

Measles virus can live for up to two hours in an airspace after an infected person leaves an area; if other people breathe the contaminated air or touch the infected surfaces and then touch their eyes, noses, or mouths, they can become infected. More than 90% of people who have not been vaccinated or have not had measles will develop measles after being exposed.

What are the symptoms of measles?

Symptoms usually begin 7-14 days after exposure but can appear as long as 21 days after exposure, and may include:

- High fever (may spike to over 104°F)
- Cough
- Runny nose
- Red, watery eyes (conjunctivitis)
- Koplik spots: tiny white spots on the inner cheeks, gums, and roof of the mouth (develops 2-3 days after symptoms begin)
- Rash: Red, raised, and blotchy appearance and usually starts on the face and spreads to the trunk, arms, and legs (develops 3-5 days after symptoms begin)

How long is a person contagious with measles?

Infected people can spread measles to others from four days before through four days after the rash appears.

Are there complications from measles?

- Ear infection and diarrhea are the most common complications.
- People with weakened immune systems can develop pneumonia (an infection of the lungs), which is the leading cause of death from measles in young children.
- Encephalitis (inflammation of the brain) is an uncommon, but serious complication that can cause permanent brain damage or death.

- Subacute sclerosing panencephalitis (SSPE) is a rare, but fatal degenerative brain disease that's characterized by behavioral and intellectual deterioration, and seizures that generally develop 7-10 years after measles infection.
- During pregnancy, measles infection may cause premature birth, low birth-weight, and fetal death.
- About 1 in 5 unvaccinated people in the U.S. who get measles is hospitalized.

How can I protect myself from measles?

Measles can be prevented with the MMR vaccine. The vaccine protects against three diseases: measles, mumps, and rubella. The MMR vaccine is safe and effective. It is two doses and is about 97% effective in preventing measles and protecting against it for life.

Health care providers recommend that children receive the MMR vaccine between 12 and 15 months of age, and again between 4 and 6 years of age — before entering school.

Individuals born before 1957 have "presumptive immunity" which means they've mostly likely had measles when they were a child and are immune to the disease.

If you don't have proof of immunity or record of 2 MMR vaccinations, talk to your health care provider.

What is the difference between "natural immunity" vs. "vaccine-induced immunity"?

People develop immunity after the body develops antibodies to an infectious disease. The antibodies will then monitor the body and alert the immune system if the germ appears again. Active immunity can happen in different ways.

- **Natural immunity** occurs following a measles infection, Developing natural immunity can be dangerous because you don't know how the body will respond to the disease, and what complications may develop. For example, research tells us that about 1 in 5 unvaccinated people in the U.S. who get measles are hospitalized.
- **Vaccine immunity** occurs when a killed or weakened form of measles is given through a vaccine. Vaccines work by imitating an infection to engage the body's immune system. It helps the body learn how to defend itself from disease without the dangers of an actual infection. Minor reactions like a sore arm or fever may happen after vaccination. Serious reactions are rare.

I have been exposed to measles, what do I do?

- Unvaccinated individuals need to get vaccinated within 72 hours of exposure. If you do not have a record of two measles (MMR) vaccines, unsure if you have been vaccinated, or unsure if you have had measles in the past, contact your healthcare provider.
- Immune Globulin (Ig) treatment is effective within 6 days of exposure for high-risk individuals, including those who are unvaccinated or unsure about vaccination status, pregnant women and those with a weakened immune system due to illness and diseases like HIV, malnutrition, and/or medications.
- If symptoms develop, **call ahead before visiting your doctor or emergency room** so they can take precautions to prevent exposure to other individuals.
- Stay home if you are sick and don't allow visitors in your home, as measles is highly contagious.
- Watch for symptoms for 21 days after potential exposure. Call your healthcare provider if symptoms develop and inform them that you were exposed.

Does vitamin A prevent or cure measles?

Vitamin A will not prevent or cure measles. Vitamin A may be given under the supervision of a health care provider to someone diagnosed with measles to help with some of the complications of the disease. However, too much Vitamin A can lead to toxicity."

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