

# PUBLIC HEALTH FACT SHEET

# Measles

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## What is measles?

Measles is a disease caused by a virus that spreads very easily from person to person. It usually lasts a week or two. Measles looks and feels like a cold or the flu at first. A cough, high fever, runny nose and red, watery eyes are common. A few days later, a red, blotchy rash starts on the face, then spreads to the rest of the body.

## Is measles dangerous?

Yes. Measles often causes diarrhea, ear infections and pneumonia. Deafness, blindness, seizure disorders and other brain diseases with measles are less common. Measles can also cause swelling of the brain and death, although this is rare in the United States. Measles is most dangerous for children under 5 years of age, adults over 20 years of age, pregnant women, and people with weakened immune systems.

## How is measles spread?

Measles is more easily spread than almost any other disease. The virus that causes measles lives in the nose and throat and is sprayed into the air when an infected person sneezes, coughs or talks. It can stay in the air for up to 2 hours. Other people nearby can then inhale the virus. Touching tissues or sharing a cup used by someone who has measles can also spread the virus. People with measles can spread the disease 4 days before the rash begins until 4 days after rash onset. The first symptoms appear 10 - 14 days after a person is exposed.

## Who gets measles?

- Anyone who never had measles and has never been vaccinated.
- Babies younger than 12 months old, because they are too young to be vaccinated.
- Adults who were vaccinated before 1968, because some early vaccines did not give lasting protection.
- A very small percentage of vaccinated children and adults who may not have responded well to the vaccine.

## How is measles diagnosed?

Because measles can look like other diseases that cause a rash, the only sure way to know if you have measles is to get a blood test. Sometimes tests will also be done on urine or a swab from your nose or throat.

## How can you prevent measles?

- Measles vaccine is usually given in a shot called MMR, which protects against measles, mumps and rubella. There are now many fewer cases of these three diseases because children get the MMR vaccine. Protect your children by having them vaccinated when they are 12 - 15 months old, and again when they are about to enter kindergarten.
- State regulations require certain groups to be vaccinated against measles. Some health care workers and all children in kindergarten – 12<sup>th</sup> grade and college need to have 2 doses of MMR vaccine for school entry. Children in child care and preschool need 1 dose of MMR and childcare workers also need to have 1 or 2 doses of measles containing vaccine, depending on their age and other factors. A blood test that proves immunity can also be used to fulfill this requirement for all groups.
- Adults born in or after 1957 should have at least 1 dose of MMR.
- People in high risk groups such as health care workers (paid, unpaid and volunteer), health science students and international travelers should have 2 doses of MMR, *regardless* of year of birth.
- Women who plan to have children and are not immune should get MMR at least 4 weeks before getting pregnant.

- If you have been exposed to someone with measles, talk to your doctor or nurse right away to see if you need a vaccination. If you get the vaccine less than 3 days (72 hours) after being exposed, it will help protect you against measles. People who cannot be vaccinated can be treated with immune globulin (IG antibodies) up to 6 days after exposure. IG may not prevent measles, but it does make the disease milder.
- People with measles should be kept away from people who are not immune until they are well again. State regulations require anyone who catches measles to be isolated for 4 days after the rash appears. That means they must be kept away from public places like day care centers, school and work.

## What should travelers do?

Because measles is more common in other parts of the world, people who travel to other countries should make sure that they are protected before traveling.

- All travelers 12 months of age and older should have 2 doses of MMR given at least 28 days apart or a blood test showing immunity.
- Children 6 through 11 months of age should receive 1 dose of MMR before traveling. These children will still need to get their 2 routine doses of MMR at 12-15 months and 4-6 years of age.

## Is MMR vaccine safe?

Yes. It is safe for most people. However, a vaccine, like other medicines, can cause side effects in some people. The MMR vaccine can cause fever, mild rash, temporary pain or stiffness of the joints. More severe problems, such as seizures, bleeding problems or allergic reactions are very rare. Getting MMR vaccine is much safer than getting measles, and most people do not have any problems with the vaccine.

## Who should not get MMR vaccine?

- People who have serious allergies to gelatin, the drug neomycin or a previous dose of the vaccine.
- Pregnant women or women who are trying to get pregnant within 4 weeks should not get MMR vaccine until after they deliver their babies.
- People with cancer, HIV or other problems, or treatments that weaken the immune system should check with their doctor or nurse before getting vaccinated.
- People who have recently had a transfusion or were given other blood products should check with their doctor or nurse before getting vaccinated.
- People with high fevers should not be vaccinated until after the fever and other symptoms are gone.

## Should healthcare workers be extra careful about measles?

Yes. Healthcare workers who are not immune to measles can pick up the virus and spread it to their patients, who might then become dangerously ill. That is why it is recommended that some health care workers who do not have evidence of immunity must stay out of work from the 5th day through the 21st day after being exposed to measles or at least 4 days after the rash appears. Healthcare workers who do not have serologic evidence of immunity (i.e., positive blood test) must have documentation of 2 doses of measles vaccine, with the first received after their first birthday and both doses received after 1967.

## Where can I get more information?

- Your doctor, nurse or clinic, or your local board of health (listed in the phone book under local government).
- The Massachusetts Department of Public Health, Immunization Program (617) 983-6800 or toll-free at (888) 658-2850 or on the MDPH Website at [www.state.ma.us/dph/](http://www.state.ma.us/dph/).
- Boston providers and residents may also call the Boston Public Health Commission at (617) 534-5611.
- CDC National Immunization Information Hotline:
  - English: 1-800-232-2522 or Spanish: 1-800-232-0233 (Mon – Fri, 8am – 11pm)
  - TTY: 1-800-243-7889 (Mon – Fri, 10am – 10pm)