

Measles and the Vaccine (Shot) to Prevent It

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The best way to protect against measles is to get the measles-mumps-rubella shot (called the MMR shot). Doctors recommend that all children get the MMR shot.

Why should my child get the MMR shot?

The MMR shot:

- Protects your child from measles, a potentially serious disease (and also protects against mumps and rubella)
- Prevents your child from getting an uncomfortable rash and high fever from measles
- Keeps your child from missing school or childcare (and keeps you from missing work to care for your sick child)

Is the MMR shot safe?

Yes. The MMR shot is very safe, and it is effective at preventing measles (as well as mumps and rubella). Vaccines, like any medicine, can have side effects. But most children who get the MMR shot have no side effects.

What are the side effects?

Most children do not have any side effects from the shot. The side effects that do occur are usually very mild, such as a fever or rash. More serious side effects are rare. These may include high fever that could cause a seizure (in about 1 person out of every 3,000 who get the shot) and temporary pain and stiffness in joints (mostly in teens and adults).

Is there a link between the MMR shot and autism?

No. Scientists in the United States and other countries have carefully studied the MMR shot. None has found a link between autism and the MMR shot.

What is measles?

Measles is a serious respiratory disease (in the lungs and breathing tubes) that causes a rash and fever. It is very contagious. In rare cases, it can be deadly.

What are the symptoms of measles?

Measles starts with a fever that can get very high. Some of the other symptoms that may occur are:

- Cough, runny nose, and red eyes
- Rash of tiny, red spots that start at the head and spread to the rest of the body
- Diarrhea
- Ear infection



Doctors recommend that your child get 2 doses of the MMR shot for best protection. Your child will need one dose at each of the following ages:

- 12 through 15 months
- 4 through 6 years

Infants 6 months to 11 months old should have 1 dose of MMR shot before traveling abroad.



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Is it serious?

Measles can be dangerous, especially for babies and young children. From 2001-2013, 28% of children younger than 5 years old who had measles had to be treated in the hospital.

For some children, measles can lead to:

- Pneumonia (a serious lung infection)
- Lifelong brain damage
- Deafness
- Death

How does measles spread?

Measles spreads when a person infected with the measles virus breathes, coughs, or sneezes. It is very contagious. You can catch measles just by being in a room where a person with measles has been, up to 2 hours after that person is gone. And you can catch measles from an infected person even before they have a measles rash. Almost everyone who has not had the MMR shot will get measles if they are exposed to the measles virus.

Where do measles cases in the United States come from?

Measles disease can come into this country when unvaccinated U.S. residents travel internationally or foreign visitors to the United States are exposed to measles in another country and travel into the United States. The risk of getting measles may be very high for unvaccinated U.S. residents who travel abroad. The reason for this high risk is because measles is common in other parts of the world, including countries in Europe, Asia, the Pacific, and Africa. Worldwide, about 20 million people get measles each year. When people with measles travel into the United States, they can spread the disease to unvaccinated people including children too young to be vaccinated.

How many measles cases are there in the United States each year?

From 2001 to 2013, the number of measles cases reported in the United States ranged from 37 to 220. However, in some years like 2014, there were more measles cases than usual. In 2014, 644 people from 27 states were reported as having measles. Most of these people got measles in the United States after being exposed to someone who got measles while in another country. So far in 2015, more than 100 people in the U.S. have been reported to have measles. Most of these cases are part of a large, ongoing outbreak linked to an amusement park in California. For more information, see <http://www.cdc.gov/measles/cases-outbreaks.html>.

Where can I learn more about the MMR shot and my child?

To learn more about the MMR shot, talk to your child's doctor, call 1-800-CDC-INFO, or visit www.cdc.gov/vaccines/parents.

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and American Academy of Pediatrics strongly recommend children receive all vaccines according to the recommended schedule.

Measles (rubeola, hard measles, red measles)

What is measles?

Measles is a highly contagious viral disease that can be very serious or even fatal. It begins with a fever that lasts for a couple of days, followed by a cough, runny nose, and conjunctivitis (pink eye). A rash starts on the face and upper neck, spreads down the back and trunk, then extends to the arms and hands, as well as the legs and feet. After about five days, the rash fades in the same order it appeared. Serious complications of measles include pneumonia and encephalitis (inflammation of the brain).

Who gets measles?

As a result of widespread immunization, the measles virus does not circulate in the United States. All reported cases of measles in the United States have been brought in from other countries, usually Europe and Asia. Travelers leaving the United States should be immune to measles. Although measles is usually considered a childhood disease, it can be contracted at any age by a person who never had the disease or been vaccinated. Unvaccinated individuals are 22 times more likely to get measles than are those who have two measles vaccines, usually given as measles, mumps and rubella vaccine (MMR).

How is measles spread?

Measles is highly contagious. The measles virus lives in the mucus in the nose and throat of infected people. When they sneeze, cough or talk, droplets spray into the air and the droplets remain active and contagious on infected surfaces for up to two hours.

What are the symptoms of measles?

Measles symptoms generally appear in two stages. In the first stage, which lasts two to four days, the individual may have a runny nose, cough and a slight fever. The eyes may become reddened and sensitive to light while the fever gradually rises each day, often peaking as high as 103° to 105°F. Koplik spots (small bluish white spots surrounded by a reddish area) may also appear on the gums and inside of the cheeks. The second stage begins on the third to seventh day and consists of a red blotchy rash lasting five to six days. The rash usually begins on the face and then spreads downward and outward, reaching the hands and feet. The rash fades in the same order that it appeared, from head to extremities. Other symptoms include weight loss, diarrhea and enlarged lymph glands throughout the body.

How soon do symptoms appear?

Symptoms usually appear in ten to 12 days, although they may occur as early as seven or as late as 18 days after exposure.

When and for how long is a person able to spread measles?

An individual is able to transmit measles from four days prior to and four days after rash onset.

What are the complications associated with measles?

Complications occur in up to 30 percent of all cases and are more common in those younger than five and older than 20 years of age. Pneumonia occurs in up to six percent of reported cases. Encephalitis (inflammation of the brain) may also occur. Other complications include middle ear infection, diarrhea and seizures. Infection of the mother during pregnancy has been associated with an increase in low-birth weight infants, premature labor, miscarriage and birth defects.

What is the treatment for measles?

There is no specific treatment for measles.

Does past infection make a person immune?

Yes. Immunity acquired after contracting the disease is usually permanent.

Is there a vaccine for measles?

Measles-containing vaccine is recommended for anyone born on or after January 1, 1957, who does not have a history of physician-diagnosed measles or a blood test confirming measles immunity. Individuals should receive 2 doses of MMR (measles, mumps, rubella) vaccine for maximum protection. The first dose should be given at 12 to 15 months of age. The second dose should be given at four to six years of age (age of school entry) at the same time as the DTaP and polio booster doses. MMR vaccine is recommended for all measles vaccine doses to provide increased protection against all three vaccine-preventable diseases: measles, mumps and rubella. Unprotected persons can get the vaccine at any age.

In New York State, measles immunizations are required of all children enrolled in pre-kindergarten programs and schools. Healthcare personnel and college students are also required to demonstrate immunity against measles.

Does the MMR vaccine cause autism?

There is no evidence to support that measles-mumps-rubella vaccine (MMR) cause autism.

What can be done to prevent the spread of measles?

Maintaining high levels of measles immunization in the community is critical to controlling the spread of measles. Infected individuals should be excluded from work or school during their infectious period. Measles-containing vaccine should be provided to susceptible contacts within 72 hours of exposure. Immune Globulin (IG) can be given to susceptible persons within six days of exposure.