

## About Measles

Measles, also called **rubeola**, is a highly contagious respiratory infection that's caused by a virus. It causes a total-body skin rash and flu-like symptoms, including a fever, cough, and runny nose. Since measles is caused by a virus, there is no specific medical treatment for it and the virus has to run its course. But a child who is sick should drink plenty of fluids, get lots of rest, and be kept from spreading the infection to others.

## Signs and Symptoms

While measles is probably best known for its full-body rash, the first symptoms of the infection are usually a hacking cough, runny nose, high [fever](#), and red eyes. Children who get the disease also may have **Koplik's spots**, small red spots with blue-white centers that appear inside the mouth.



The measles rash breaks out 3-5 days after symptoms start, and can coincide with high fevers up to 104°F (40°C). The red or reddish-brown rash usually first shows up as flat red spots on the forehead. It spreads to the rest of the face, then down the neck and torso to the arms, legs, and feet. The fever and rash gradually go away after a few days.

## Contagiousness

Measles is highly contagious — 90% of people who haven't been vaccinated for measles will get it if they are near an infected person. Measles spreads when people breathe in or have direct contact with virus-infected fluid, such as the droplets sprayed into the air when someone with measles sneezes or coughs. A person who is exposed to the virus might not show symptoms until 8-10 days later.

People with measles are contagious (can spread the disease) from 4 days before the rash appears until about 4 days after it does, and are most contagious while they have a fever, runny nose, and cough. Those with weakened immune systems due to other conditions (like [HIV and AIDS](#)) may be contagious until they recover from measles.

The people at highest risk of getting measles during these outbreaks are infants (who aren't old enough to get the vaccine), pregnant women, and people with poor nutrition or weakened immune systems.

## Exposure

During a measles outbreak, an injection of measles antibodies (called immune globulin) can help protect people who haven't been vaccinated if they come into contact with an infected person (called "exposure"). The injection is most effective if it's given within 6 days of exposure. These antibodies can either prevent measles or make symptoms less severe.

For women who are not pregnant and people not in one of the other at-risk groups, the measles vaccine may offer some protection if given within 72 hours of measles exposure.

Unvaccinated people who are exposed to measles and show symptoms of the virus should seek medical care. Otherwise, they should stay home and not return to childcare, school, or work until 21 days after they were exposed.

## Prevention

The most important thing you can do to protect your kids from measles is to have them vaccinated according to the [immunization schedule](#) prescribed by your doctor.

Older kids are usually immunized against measles according to state and school health regulations. For most, measles protection is part of the [measles-mumps-rubella vaccine \(MMR\)](#) or measles-mumps-rubella-varicella vaccine (MMRV) given when they're 12 to 15 months old and again when they're 4 to 6 years old.

Infants are generally protected from measles for 6 months after birth due to immunity passed on by their mothers. Measles vaccine usually is not given to infants younger than 12 months old. But if there's a measles outbreak, or a child will be traveling outside the United States, the vaccine may be given when a child is 6-11 months old, followed by the usual MMR immunization at 12-15 months and 4-6 years of age.

The measles vaccine sometimes causes side effects in kids who don't have underlying health problems. The most common reactions are fever 6-12 days after vaccination (in about 15% of kids vaccinated) and a measles-like rash, which isn't contagious and fades on its own (in about 5% of vaccinated kids).

As with all immunization schedules, there are important exceptions and special circumstances. Your doctor will have the most current information about vaccine recommendations.

The measles vaccine should *not* be given to these at-risk groups:

- pregnant women
- kids with untreated tuberculosis, leukemia, or other cancers
- people whose immune systems are weakened for any reason
- kids who have a history of severe allergic reaction to gelatin or to the antibiotic neomycin, as they could have serious reactions to the vaccine

Because certain people cannot receive the measles vaccine for health reasons, it's all the more important to make sure that children who can get the vaccine get it on schedule. At-risk children depend on "herd immunity." This means a high percentage of people have been immunized against a disease, which prevents the disease from spreading in a population and helps prevent outbreaks.

## **Treatment**

There is no specific medical treatment for measles. To help manage symptoms, which usually last for about 2 weeks, give your child plenty of fluids and encourage extra rest. If a fever is making your child uncomfortable, you can give a non-aspirin fever medicine, such as [acetaminophen](#) or [ibuprofen](#).

Remember, you should **never give aspirin** to a child who has a viral illness, as its use in such cases has been associated with the development of [Reye syndrome](#).

Kids with measles should have their condition closely monitored by a doctor. In some cases, measles can lead to other complications, such as [otitis media](#), [croup](#), diarrhea, [pneumonia](#), and encephalitis, which may require antibiotics or hospitalization.

Children with measles should be quarantined for 4 days after their rash appears. If they have a weakened immune system, they should stay in isolation until they make a full recovery and all symptoms are gone.

## **When to Call the Doctor**

Call the doctor immediately if you suspect that your child has measles. Also, it's important to get medical care after measles exposure, especially if your child:

- is an infant
- is taking medicines that suppress the immune system
- has tuberculosis, cancer, or a disease that affects the immune system

Most important: remember that measles, a once common disease, is preventable through routine childhood immunization.