



FACT SHEET: MEASLES

GENERAL INFORMATION

- Measles is a respiratory disease caused by a virus. It is a highly contagious disease, with a 90% infection rate among susceptible individuals.
- The virus can live on surfaces for up to two hours and can sometimes float in the air and infect others for about an hour after a person with measles leaves the room. It is so contagious that someone who is exposed to the disease and does not have immunity will most likely become infected.
- In 2000, measles was declared eliminated (meaning no continuous spread for 12 months) from the U.S. Measles is still found worldwide, but are more prominent in countries with low vaccination rates. In the United States, cases of measles generally originate outside of the country.

QUICK FACTS

- As of August 6, 2026, 2,465 confirmed measles cases were reported in the United States in 2026. This is the highest number of cases in a single year in the U.S. in more than 3 decades.
- Kentucky's 2025–2026 school immunization survey showed coverage among kindergartners with both doses of the MMR vaccine increased to 91% from 86.9%, but is still lower than the national average of 93%.
- 7th and 11th grade MMR vaccination rates remained stable at >95% in 2025.
- Despite the statewide improvement, kindergarten MMR coverage remains uneven across Kentucky. County-level data show substantial variation, with some counties well below the approximately 95% level generally associated with stronger community protection against measles.

WHAT ARE THE SYMPTOMS OF MEASLES?

- The initial symptoms of measles can occur between 7-14 days after exposure.
- Early symptoms include: resemble a cold with fever (>101 F), cough, runny nose, and watery, pink/red eyes (conjunctivitis).
- Two to three days later, symptoms include Koplik spots (tiny white spots with bluish-white centers) inside the mouth.
- On day 3-5, a red blotchy rash appears, usually at the hairline or on the face, spreading down the trunk and out the arms and legs.



HOW IS MEASLES SPREAD?

- It spreads through the air via coughing, sneezing or breathing.

COMPLICATIONS

- About 30 percent of reported cases experience one or more complications. Complications from measles include diarrhea, ear infections (~10% of children), encephalitis (1 in 2,000 cases, with 10-15% fatality rate and 25% left with permanent neurological damage), sinusitis, bronchitis, and pneumonia (1 in 20 pediatric cases), which is the most common cause of death from measles in young children.
- Complications are more common among people younger than 5 years old or older than 20 years old, as well as pregnant women and those with weakened immune systems.

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HISTORY

- Before widespread vaccination began in the U.S. in 1963, 3-4 million cases of measles were reported each year. It was responsible for 48,000 hospitalizations, 1,000 cases of encephalitis, and 400-500 deaths each year.
- Measles deaths fell dramatically in the first half of the 20th century prior to the introduction of a vaccine. This was largely due to improvements in sanitation, education, and nutrition, and advancements in medical care. However, measles infections did not drop until the introduction of the measles vaccine in 1961. At that point the number of cases dropped to less than 10 within a few years. It was officially declared eliminated in 2000.
- The importance of eliminating infections in addition to deaths is that the health impact of the disease on survivors is significant—hospitalization, hearing loss, immunity amnesia, pneumonia, encephalitis, blood clotting, and other long-term consequences.

TREATMENT

There is no specific treatment for measles, other than rest. If a child tests positive, the following steps are recommended:

- Contact their healthcare provider, who can recommend specific recovery recommendations based on their symptoms and health history.
- Let their closest contacts know, so they can be tested and kept away from others.
- Make sure you have essentials: thermometer, masks, fluids, OTC pain reliever or fever reducer.
- Isolate. Keep them at home and away from others. If they must go in public, have them wear a mask.
- Track their symptoms. Call 911 if they experience trouble breathing, a severe headache, confusion or clumsiness, a stiff neck, seizures or paralysis, or a fever higher than 105 F.
- If their symptoms include a rash, they may return to normal activities after having the rash for four days.

VACCINATION

Vaccination is the single most effective prevention method against measles. In the United States, and other developed countries around the world, most children are vaccinated against the disease by the age of 18 months through the measles, mumps and rubella vaccine.

- It only takes a few days for antibodies to develop in response to the MMR vaccine, with the immune system fully primed within 2-3 weeks.
- The MMR vaccine prevents 97% of cases with two doses.
- Vaccines are recommended for:
 - Children (dose one) at 12-15 months, and (second dose) 4-6 years, although may be given sooner as long as at least 28 days have passed since the prior dose.
 - Children 6-11 months who are travelling internationally, at least two weeks prior.
 - Adults born on or after January 1, 1957, who have not had two doses of the measles vaccine after 12 months of age.
 - Anyone travelling internationally. Healthcare personnel. Students at post-high school educational institutions. People determined are at high risk.
 - People who received one dose between 1963-1967 with an older, less-effective vaccine need to be revaccinated with at least one dose.
- Those who are presumed to be protected are:
 - Those who have received two doses of MMR vaccine.
 - Those who received one dose administered in 1968 or later in a preschool-aged child or adult not in a high-risk setting.
 - Those born before 1957 (presumed to have gotten it and are immune).
- It is rare (~3%) that people who are vaccinated against measles become infected, but those who do typically experience a milder illness and are less likely to spread the virus than unvaccinated people. Most people who get the vaccine are protected for life. They do not need a booster shot.

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