

Measles FAQs

June 27, 2025

VACCINE/IMMUNITY INFORMATION

Q: Am I protected against measles?

Most people are immune to measles due to routine childhood immunization or prior exposure for older adults before measles was eliminated in the U.S. The presumptive criteria for immunity to measles includes any of the following:

- Were born before 1957
- Have written documentation with date of receipt of at least one dose of measles-containing vaccine given on or after their first birthday in 1968 or later; or
- Have documentation of positive IgG test for measles immunity (frequently needed for health care workers as a condition of employment); or
- Have laboratory confirmation of previous disease; or
- Served in the U.S. armed forces

Q: Do I ever need a booster vaccine?

No. People who received two doses of measles vaccine as children according to the U.S. vaccination schedule are considered protected for life and they do not ever need a booster dose.

Q: I am an adult now but only got one dose of measles vaccine as a child. Do I need a second dose?

For most adults, one dose of measles vaccine is sufficient to be considered protected from measles. However, adults who received the inactivated (killed) measles vaccine that was available from 1963-1967 should be revaccinated with at least one dose of MMR, as that vaccine was not effective.

Certain adults may need 2 doses. Adults who are going to be in a setting that poses a high risk for measles transmission should make sure they have had two doses separated by at least 28 days. These adults include:

- Anyone who is traveling internationally
- Healthcare personnel
- Students at post-high school education institutions
- People who public health authorities determine are at increased risk for getting measles during a measles outbreak

If you're not sure whether you are up to date on measles vaccine, talk with your healthcare provider.

Q: What should I do if I'm unsure whether I'm immune to measles?

If you're unsure whether you're immune to measles, you should first try to find your vaccination records or documentation of measles immunity. Individuals can check vaccination records for themselves or their children using the [Kentucky Immunization Registry Public Portal](#), though these records may be incomplete for adults unless their health care provider entered their historical vaccine doses.

If you do not have written documentation of measles immunity, you should get vaccinated with measles-mumps-rubella (MMR) vaccine. There is no harm in getting another dose of MMR vaccine if you may already be immune to measles (or mumps or rubella). Another option is to have a healthcare provider test your blood to determine whether you're immune, but this is generally not recommended.

Q: When should children receive MMR vaccine?

All children are recommended to get two doses of MMR (measles-mumps-rubella) vaccine, starting with the first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age. Children can receive the second dose earlier as long as it is at least 28 days after the first dose.

Children 6 through 11 months of age that are traveling internationally are recommended to receive a dose of MMR ideally at least 2 weeks prior to travel. Note: this dose is not considered a valid dose and should be repeated to ensure child receives 2 total doses on or after the first birthday.

Q: How effective is the measles vaccine?

The measles vaccine is very effective. Two doses of measles vaccine are about 97% effective at preventing measles if exposed to the virus. One dose is about 93% effective.

Q: Could I still get measles if I am fully vaccinated?

Very few people—about three out of 100—who get two doses of measles vaccine can still get measles if exposed to the virus. Experts aren't sure why. It could be that their immune systems didn't respond as well as they should have to the vaccine. But the good news is, fully vaccinated people who get measles seem more likely to have a milder illness. And fully vaccinated people seem also less likely to spread the disease to other people, including people who can't get vaccinated because they are too young or have weakened immune systems.

Q: How many children are vaccinated against measles in Kentucky?

Results from the most recent assessment of kindergarten vaccines for [the 2024-2025 school year](#) show that immunization coverage among kindergartners for the measles, mumps and rubella (MMR) vaccine, has dropped to **86.9%**, which is lower than the national average of 93% and the 2023-2024 school assessment of 90%. Rates of religious and medical exemptions to vaccines have increased among Kentucky kindergarteners in recent years and is estimated to be 2.1%.

MMR vaccine coverage among older school-aged children in Kentucky is higher, around 96% for 7th and 11th grade students in the 2024-2025 school year.

MEASLES DISEASE INFORMATION FOR THE GENERAL PUBLIC

Q: What is measles?

Measles is a disease caused by a highly contagious virus. People with measles spread the virus through the air when they cough, sneeze, or breathe.

Q: What are signs and symptoms of measles?

Measles symptoms typically begin 8-12 days after contact with the virus. Symptoms of measles typically include high fever, cough, runny nose, and red watery eyes, followed 3-5 days later by a rash that usually starts on the face and spreads down the body. Koplik spots (tiny white spots inside the mouth) can appear 2 to 3 days after symptoms begin. Measles can be dangerous. Some people who become sick with measles also get a serious lung infection, such as pneumonia. Although severe cases are rare, measles can cause swelling of the brain and even death.

People at high risk for severe illness and complications from measles include:

- Infants and children aged <5 years
- Adults aged >20 years
- Pregnant women
- People with compromised immune systems, such as from leukemia and HIV infection

Q: How does measles spread?

Measles is one of the most contagious diseases. The virus is transmitted through the air and can live for up to two hours in an airspace after an infected person leaves the area. Infected people can spread measles to others before they have any symptoms and up to four days before the rash appears.

Q: I've been exposed to someone who has measles. What should I do?

Contact your healthcare provider or local health department and let them know that you have been exposed to someone who has measles. Your healthcare provider can:

- Determine if you are immune to measles based on your vaccination record, age, or laboratory evidence.
- Make special arrangements to evaluate you, if needed, without putting other patients and medical office staff at risk.

If you are not immune to measles, MMR vaccine or a medicine called immune globulin may help reduce your risk developing measles. Your healthcare provider or health department can advise you and monitor you for signs and symptoms of measles.

If you are not immune, you should stay away from settings where there are susceptible people (such as schools, hospitals, or childcare) until your healthcare provider says it's okay to return. This will help ensure that you do not spread it to others.

Q: I think I have measles. What should I do?

Immediately call your healthcare provider and let them know about your symptoms so that they can tell you what to do next. Your healthcare provider can make special arrangements to evaluate you, if needed, without putting other patients and medical office staff at risk

Q: Why are there so many measles cases in the United States?

Measles was declared eliminated in the United States in 2000 which means the virus is no longer continuously spreading. This was because of the very high percentage of people receiving MMR vaccine, allowing for

community immunity. In recent years, MMR coverage among children has declined and global measles activity is increasing. There are now increased chances that an unvaccinated person becomes infected while traveling abroad and returns to the U.S. and infects others.

CDC monitors the number of measles cases in the United States at <https://www.cdc.gov/measles/data-research/index.html>.

Q: How many measles cases used to be in the United States?

Before the measles vaccine program started in 1963, an estimated 3-4 million people got measles each year in the U.S. Among reported cases, 400-500 died, 48,000 were hospitalized, and 1,000 developed encephalitis.

MEASLES INFORMATION FOR HEALTH CARE PROVIDERS

Q: What patients should be tested for measles?

Healthcare providers should contact the health department if they suspect a patient has measles. Consider measles in patients who have fever ≥ 101 F, plus at least one of the 3 “Cs” (cough, coryza or conjunctivitis) and a rash* who:

- Are unvaccinated; OR
- Do not meet eligibility criteria for presumptive immunity** for measles; OR
- Have at least one epidemiologic risk factor in the past 21 days:
 - Known contact with a measles case or an ill person with fever and a rash
 - Contact with an international visitor who arrived in the U.S. within the past 21 days
 - Travel outside the U.S.
 - Travel through an international airport
 - Visited a U.S. venue popular with international visitors such as a large theme park
 - Visited or lives in a U.S. community where measles exposures have known to occur

*The rash typically starts on the face within 4 days of illness onset and descends the body.

Patients with suspected measles should be placed in an airborne infection isolation room (AIIR), when possible. If an AIIR is not available, place patient in a private room with the door closed. Additional best practices include:

- Minimize waiting room exposures through rapid triage and masking
- Schedule patient with suspected measles to arrive at the end of the day or after routine hours
- Keep exam rooms vacant for 2 hours after the patient leaves
- Adhere to Airborne Precautions, including healthcare personnel use of N-95 respirator

Q: How should I test a patient for measles?

Clinicians and healthcare facilities may have access to measles testing at KDPH Division of Laboratory Services after consultation with the health department for highly suspicious cases. For suspected measles, an oropharyngeal (OP) or nasopharyngeal (NP) swab for RT-PCR is the preferred specimen.

- Collect OP or NP swabs (synthetic preferred over cotton) and place in 2mL viral transport medium.
- Contact LHD or KDPH prior to submission

Measles PCR is available via commercial laboratories but may have longer turnaround times. Serologic testing for measles IgM can provide presumptive evidence of current or recent measles virus infection, however results may take several days and false-positive results can occur.

Do not test asymptomatic people for measles infection. Routine IgG testing of asymptomatic people to determine immunity is not recommended unless it is needed for workplace clearance, to be cleared from quarantine, or other specific surveillance needs.

See further guidance at:

<https://www.chfs.ky.gov/agencies/dph/dehp/idb/Documents/KDPHMeaslesTestingGuidance.pdf>

https://www.chfs.ky.gov/agencies/dph/dehp/idb/Documents/MeaslesQuicksheet_March_2024.pdf