

CDC Asking Physicians to “Think Measles” and Help Stop the Spread

Many of today’s physicians may never have seen a patient with measles— a disease that can cause serious complications in infants, young children, and adults. CDC is urging all physicians to “think measles” when evaluating patients who have fever and rash, and to know what to do to prevent, control, and report measles cases.

Pediatricians and family practitioners are the primary healthcare professionals who will likely encounter people with measles. They should ensure that young children are getting the best protection possible against the disease—two doses of measles-mumps-rubella (MMR) vaccine on schedule. They should also remember to ask families about their travel plans to other countries; MMR vaccine can be given to children as young as 6 months of age, if they are traveling internationally. They should also remind adult patients that they may need MMR vaccine as well. Some adults may have missed out on vaccination in the past or may have only received one dose of measles vaccine.

Measles in the United States

The U.S. measles vaccination program started in 1963. Before that time, about 3 to 4 million people got measles each year in this country. Of those people, 400 to 500 died, 48,000 were hospitalized, and 1,000 developed chronic disabilities from measles encephalitis. The United States was able to eliminate measles by 2000 because our vaccination program is very effective and our strong public health system quickly detects and responds to measles cases that are brought into the country.

Even though we declared that measles was eliminated from the United States, that doesn’t mean we no longer have cases. Elimination means that measles is no longer considered an endemic disease with continuous, year-round circulation and transmission of the measles virus. Every year, measles cases are brought into the United States by unvaccinated people who get the disease while they are in other countries. Since 2000, the annual number of reported measles cases has ranged from a low of 37 cases in 2004 to a high of 1,282 cases in 2019.

Measles is still common in many parts of the world, including some countries in Europe, Asia, the Pacific, and Africa. Unvaccinated travelers that are infected with measles abroad continue to bring the disease into the United States; once they do, it quickly spreads when it reaches communities with groups of people who are unvaccinated.

Identifying Measles

Measles is an acute viral respiratory illness. Patients may present with the following symptoms:

- Fever (as high as 105°F); malaise; and cough, coryza, and conjunctivitis (the three “C”s)
- A maculopapular rash usually appears about 14 days after a person is exposed; however, the incubation period ranges from 7 to 21 days. The rash spreads from the head to the trunk to the lower extremities.

If you suspect a patient has measles, ask about their:

- Vaccination status
- Recent international travel
- Travel to domestic venues frequented by international travelers
- Contact with anyone who has traveled internationally
- Measles in the local community

You should report suspected measles cases to the local health department immediately. Laboratory confirmation is essential for all sporadic measles cases and all outbreaks. Physicians will need to obtain both a serum sample and a throat swab (or nasopharyngeal swab) from patients suspected to have measles at first contact with them. Urine samples may also contain virus, and when feasible to do so, collecting both respiratory and urine samples can increase the likelihood of detecting measles virus.

Measles Transmission

Measles is one of the most contagious of all infectious diseases. About 9 out of 10 susceptible people who have close contact with someone with measles will develop the disease. The virus spreads through direct contact with infectious droplets or through the air when an infected person breathes, coughs, or sneezes. Measles virus can remain infectious on surfaces and in the air for up to two hours after an infected person leaves an area. Infected people are considered to be contagious from 4 days before to 4 days after the rash appears.

Prevention of Measles in Exposed People

People exposed to measles who cannot readily show that they have [evidence of immunity against measles \(http://go.usa.gov/3q38z\)](http://go.usa.gov/3q38z) should be offered post-exposure prophylaxis (PEP) or be excluded from the setting (school, hospital, childcare). MMR vaccine, if given within 72 hours of initial measles exposure, or immunoglobulin (IG), if given within six days of exposure, may provide some protection or modify the clinical course of disease.

CDC Needs Help From Physicians

Immunization is the best way to protect patients in your practice from measles. Parents trust their doctors to provide health information for their patients. Physicians should continue to recommend routine childhood MMR vaccination, starting with the first dose at 12 through 15 months of age, and the second dose at 4 through 6 years of age or at least 28 days after the first dose. Adults need MMR vaccine if they don't have evidence of immunity. Before any international travel:

- Infants 6 months through 11 months of age should have 1 dose of MMR vaccine. If they receive 1 dose of MMR before their first birthday, they should get 2 more doses of the vaccine (one at 12 through 15 months of age and another does at least 28 days later).
- Children 12 months of age or older should have 2 doses separated by at least 28 days.
- Adolescents and adults who do not have evidence of immunity should get 2 doses separated by at least 28 days.

Physicians can help address questions and concerns that patients may have about vaccinations by using [CDC materials \(www.cdc.gov/vaccines/conversations/\)](http://www.cdc.gov/vaccines/conversations/).

If you have a patient with fever and rash, check their vaccination history and ask about recent international travel or exposure to people who recently traveled internationally. If you suspect measles, follow the recommended guidelines for isolating patients and reporting cases.

More information for healthcare professionals can be found at [CDC's measles website for healthcare professionals \(www.cdc.gov/measles/hcp/\)](http://www.cdc.gov/measles/hcp/).

For measles resources for parents, see [CDC's provider resources to share with parents \(www.cdc.gov/vaccines/conversations/\)](http://www.cdc.gov/vaccines/conversations/).