

March 26, 2025

Measles Case in Ohio; Potential for Travel Exposure Recommendations for Identification and Prevention

Summary

- The Ohio Department of Health (ODH) has reported the state's first measles case of 2025. The infected adult is from Ashtabula County. The individual was unvaccinated and had contact with someone who had recently travelled internationally. ODH is working with Ashtabula County Health Department to follow up on potential exposures and to promote opportunities for vaccination.
- Two residents of Delaware County were additionally recently exposed to a measles case during an international flight. The Delaware Public Health District (DPHD) is monitoring these individuals for signs and symptoms consistent with measles infection for the duration of their incubation period. The exposed individuals have acceptable evidence of immunity to measles and thus far are healthy and asymptomatic.
- Healthcare providers should thoroughly inquire about the travel history of their patients, especially considering recent measles outbreaks across the United States.
 - As of March 20, 2025, a total of 378 confirmed measles cases were reported by 18 jurisdictions. Of the 378 cases, 90% are outbreak-associated. Texas and New Mexico currently report the highest number of cases with 309 cases reported in Texas and 42 cases reported in New Mexico.
- Healthcare providers should be alert for signs and symptoms of measles, particularly among persons who have not yet received the MMR (measles, mumps, and rubella) vaccine, including those who may have postponed or missed doses. Providers should also consider outreach to patients who are eligible for MMR to encourage routine immunization. ***Delaware Public Health District (DPHD) offers MMR vaccination through our clinic. Call 740-203-2040 to make an appointment.***
- Measles is extremely contagious and declines in measles vaccination rates globally have increased the risk of outbreaks worldwide. Ohio had one measles case in 2024, one measles case in 2023, and 90 measles cases in 2022, when an outbreak centered in central Ohio totaled 85 cases.
- Measles virus testing is available at the Ohio Department of Health Laboratory (ODHL) for eligible clinical specimens upon approval. Contact DPHD to assist in coordinating testing.

Measles is a Class A reportable disease. If measles is suspected, facilities should implement appropriate infection prevention and control measures and report any suspected case or positive laboratory result immediately to DPHD via telephone at 740-368-1700. If after hours, call 740-815-6518.

Background

Measles is a highly contagious viral respiratory illness transmitted through airborne spread of droplet nuclei or direct contact with nasal or throat secretions of infected persons. Droplet nuclei can remain suspended in the air for up to two hours.

Measles can cause severe health complications, including pneumonia, encephalitis (inflammation of the brain), and death. Complications from measles are more common among children younger than 5 years of age, adults older than 20 years of age, pregnant women, and people with compromised immune systems.

Clinical Recognition

Measles is characterized by an initial prodrome that typically includes high fever, cough, coryza, and conjunctivitis, followed by the appearance of a maculopapular rash that typically starts at the hairline and spreads downward to the trunk and outwards to the extremities. Communicability is greatest from four days before the onset of the rash until four days after the onset of rash, with rash onset being considered day 0.

Given current elevated respiratory and measles virus activity, suspicion for measles should be heightened among patients with clinically compatible measles symptoms who have not yet received MMR, including those who may have postponed or missed doses. For additional clinical information for healthcare providers, please visit Centers for Disease Control and Prevention (CDC) website at <https://www.cdc.gov/measles/index.html>.

Diagnostic Testing

The most common methods for confirmatory measles testing are detection of IgM antibody in serum and detection of RNA by real-time PCR (RT-PCR) in a respiratory specimen. The preferred specimens for RT-PCR or virus isolation are throat and nasopharyngeal swabs. Clinical specimens for RT-PCR and virus isolation should be collected at the same time as samples for serologic testing. ***Specimens for virus isolation and RNA detection should be collected within three days of rash onset.*** Detection of measles RNA and measles virus isolation are most successful when samples are collected on the first day of rash through the three days following onset of rash, but up to ten days post rash may be successful.

Isolation of measles virus in cell culture or detection of measles RNA by RT-PCR in clinical specimens generally confirms diagnosis of measles, however, a negative virus isolation or negative RT-PCR result does not rule out measles because both methods are affected by immunization status, timing of specimen collection, and the quality and handling of the clinical specimens.

Please contact the DPHD Disease Control and Response Unit to discuss appropriate measles specimen collection and testing recommendations. Testing for measles virus is available through the ODHL for eligible clinical specimens. To request approval for testing at ODHL, healthcare providers should contact DPHD at 740-368-1700 and ask for a member of the Disease Control and Response Unit (DCRU). If after hours, call 740-815-6518.

Infection Prevention and Control

Measles is a vaccine preventable disease. The measles vaccine is highly protective; one dose of MMR vaccine provides 93% protection against measles and two doses provide 97% protection. Children are eligible for routine MMR vaccination beginning at 12 months of age or earlier if traveling internationally.

Persons with probable or confirmed measles infection should be isolated, including exclusion from school or childcare center, for four days following the onset of rash. Contacts who might be susceptible should be immunized with measles vaccine as soon as possible after exposure. Measles vaccine given within 72 hours after exposure may prevent or reduce the severity of disease. Immune globulin (IG) can prevent or modify measles in a susceptible person if given within six days of exposure. IG may be especially indicated

for susceptible household contacts <1 year of age, pregnant women, or immunocompromised persons, for whom the risk of complications is increased. Contacts who might be susceptible and choose to forgo post-exposure prophylaxis should be quarantined and monitored for symptoms for 21 days after exposure.

Infection Control in Healthcare Settings

To minimize the risk of measles transmission in healthcare settings, healthcare personnel should do the following:

1. Query patients with a febrile rash illness about a history of travel, contact with foreign visitors, transit through an airport, or possible exposure to a person with measles in the 3 weeks prior to symptom onset. Possibility of measles should be considered for patients with such a history and symptoms consistent with measles.
2. ***Do not allow patients with suspected measles to remain in the waiting room or other common areas; provide a face mask to the patient and isolate patients with suspected measles immediately in an airborne infection isolation room.*** If such a room is not available, place the patient in a private room with the door closed. For additional infection control information, please refer to the CDC's control measures for measles.
3. ***Any suspected case(s) of measles should immediately be placed in airborne and standard isolation precautions.***
4. ***Notify the DPHD immediately by telephone at 740-815-6518 about any patients with suspected measles.***
5. If possible, allow only healthcare personnel with documentation of two doses of MMR vaccine or laboratory evidence of immunity to measles (i.e., measles IgG positive) to enter the patient's room.
6. Healthcare personnel should wear an N95 or higher-level respirator regardless of presumptive evidence of immunity.
7. If possible, do not allow susceptible visitors in the patient room.
8. Do not use the examination room for ***at least two hours*** after the infectious patient leaves.
9. If possible, schedule patients with suspected measles at the end of the day.
10. Notify any location where the patient is being referred to for additional clinical evaluation or laboratory testing about the patient's suspected measles status, and do not refer patients with suspected measles to other locations unless appropriate infection control measures (i.e., standard and airborne isolation precautions) can be implemented at those locations. The patient must wear a mask, if tolerated.
11. Instruct patients with suspected measles and exposed persons to inform all healthcare providers of the possibility of measles ***prior*** to entering a healthcare facility so appropriate infection control precautions (i.e., standard and airborne isolation precautions) can be implemented.
12. Make note of the staff and other patients or visitors who were in the area during the time the patient with suspected measles was in the facility and for two hours after they left. If measles is confirmed, exposed people will need to be assessed for measles immunity. The DPHD Disease Control and Response Unit will assist with contact tracing and will be responsible for assessment of immunity and notifying contacts of their exposure.

For general questions related to measles, healthcare providers and facilities should contact the DCRU team at 740-368-1700. DPHD maintains an emergency line for reporting measles, reporting other Class A communicable diseases and emergencies, and for answering communicable disease questions after hours. DPHD staff monitor this line 24/7; contact our emergency line at 740-815-6518.