

Measles: Frequently Asked Questions for Healthcare Providers



VACCINE INFORMATION

What are the current recommendations for measles vaccination?

- Children
 - First dose at 12-15 months, second dose 4-6 years (minimum 28-day interval between each dose)
- Adults
 - Born before 1957: Immunity is assumed to be present from natural infection
 - Born 1957-1968: A single dose recommended if no documentation of live vaccine administration or not contraindicated, or check a titer
 - Born after 1968:
 - If received 2 documented doses of MMR, no additional doses needed
 - If no documentation: Provide additional dose if not medically contraindicated or check a titer. In some cases, a second dose may be needed.
- Centers for Disease Control and Prevention (CDC) recommends that healthcare workers have two documented doses of MMR

Who should not receive the measles vaccination?

MMR is contraindicated for:

- People with a history of a severe allergic reaction (e.g. anaphylaxis) after a previous dose or to a vaccine component
- People with a known severe immunodeficiency (e.g. from hematologic and solid tumors, receipt of chemotherapy, congenital immunodeficiency, or long-term immunosuppressive therapy or patients with HIV who are severely immunocompromised)
- Women who are or may be pregnant

See [this CDC page](#) for detailed information about contraindications and precautions.

My patient developed a fever and rash after receiving the MMR vaccine. Should they be tested for measles?

- Mild fever and rash can occur 6-12 days after vaccination
- Testing may be needed if:
 - Strong clinical suspicion of measles
 - Increased exposure risk in the past 21 days (travel or known case exposure)
- Contact IDOH Infectious Disease Epidemiology and Prevention Division for guidance:
 - Business hours (Monday-Friday, 8:15 a.m. – 4:45 p.m.): 317-233-7125
 - After hours: 317-233-1325
- If the patient received MMR vaccine 6-45 days before symptoms, collect specimens for:
 - Viral strain typing (NP or throat swab) to distinguish vaccine vs. wild-type virus
 - Serologic tests, but results may be inconclusive due to recent vaccination

What are some tips for discussing MMR with my patients?

- Utilize patient reminder systems, such as the Reminder Recall feature in CHIRP and electronic health record (EHR) prompts, for overdue vaccinations
- Counsel patients and parents about vaccine safety and efficacy, and other prevention measures
- Review the immunizations dashboard for community level vaccination data
- Incorporating vaccine checks into routine patient visits as a standard practice
- Recommended on-time vaccinations and administer of boosters if needed

CLINICAL INFORMATION

What are the signs and symptoms of measles?

- Measles is a disease caused by a highly contagious virus that lives in the nose and throat of an infected person.
- Symptoms appear 10-12 days after exposure (range: 7-21 days):
 - Early symptoms (prodromal stage): fever, malaise, cough, coryza (runny nose), conjunctivitis (three Cs)
 - Koplik spots: small white spots inside the mouth, appearing 2-3 days after symptoms begin
 - Rash:
 - Appears 3-5 days after symptoms start.
 - Starts on the face near the hairline and spreads downward
 - Fever may spike to over 104°F when rash appears
 - Rash lasts 5-6 days, fading in the order it appeared

How is measles spread?

- Spreads via respiratory droplets and airborne transmission
- Virus remains airborne for up to 2 hours after an infected person leaves an area
- Highly contagious: 90% of susceptible people exposed will develop measles

How long are people with measles contagious?

- 4 days before to 4 days after rash onset (rash day = day 0)

Who should be tested for measles?

- Patients with:
 - Generalized maculopapular rash AND
 - Fever ($\geq 101^{\circ}\text{F}$) AND
 - Cough, coryza, or conjunctivitis
- AND had increased risk of exposure in the last 21 days:
 - Known exposure to measles or
 - Recent international travel or to an area with known cases or
 - Contact with someone with a febrile rash illness who traveled to an affected area
- Consult public health if:
 - Strong clinical suspicion with no known exposure and no [immunity evidence](#)
 - Atypical symptoms after known exposure
- To prevent false positives, avoid testing if no risk factors and atypical signs or symptoms



How can I test patients for measles?

- Strongly suspected cases should be tested at Indiana Department of Health Laboratories
- Prior authorization required – contact IDOH:
 - During business hours (Monday-Friday, 8:15 a.m. – 4:45 p.m.): 317-233-7125
 - After hours: 317-233-1325
- Collect specimens for both PCR testing and Serology
 - [Measles PCR test](#) (nasopharyngeal/throat swab) AND
 - [Measles Serology](#) (IgM, IgG)
 - IDOHL does not perform IgM, serology testing can be sent to your preferred reference lab or IDOH can assist with coordinating testing through CDC

How can I report a suspected measles case?

Measles is immediately reportable upon suspicion per the Indiana Communicable Disease Rule.

- Contact:
 - Local health department by phone **or**
 - IDOH Infectious Disease Epidemiology and Prevention Division:
 - Business hours (Monday-Friday, 8:15 a.m. – 4:45 p.m.): 317-233-7125
 - After hours: 317-233-1325

What infection control precautions should be taken for patients suspected of having measles?

- Immediate isolation and masking of suspected patients
- Airborne Infection Isolation Room (AIIR) preferred
- If no AIIR is available:
 - Place the patient in a single room with the door closed
 - Do not use the room for 2 hours after the patient leaves
- Staff precautions:
 - Notify infection prevention staff immediately
 - If transferring a patient, notify the receiving facility in advance
 - N95 respirator required when caring for suspected measles patients
 - Only healthcare providers with evidence of immunity to measles should provide care
- Presumptive evidence of immunity for healthcare providers includes:
 - Written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart
 - Laboratory evidence of immunity
 - Laboratory confirmation of disease
 - Birth before 1957 (Note: Birth before 1957 is not acceptable evidence of immunity during a measles outbreak. Healthcare facilities should consider vaccinating personnel born before 1957 who lack other evidence of immunity with two doses of MMR vaccine at the appropriate interval.)

What recommendations should I give to patients suspected of having measles?

- Isolate until 5 days after rash onset (rash day = day 0)
- If medical care is needed, call ahead to allow infection control precautions



What are the current recommendations for measles post-exposure prophylaxis (PEP)?

- If exposed and no evidence of immunity:
 - MMR vaccine within 72 hours or Immunoglobulin (IG) within 6 days of exposure may prevent or reduce the severity of infection
 - Dosage varies by age and health condition (follow [CDC guidance](#))
- Returning to work/school:
 - If vaccinated within 72 hours post-exposure, can return
 - If not vaccinated in time, must quarantine 21 days
- All exposed individuals should monitor symptoms for 21 days

Is there any treatment for measles?

- There are no specific antiviral therapies for measles
- Medical care is primarily supportive to relieve symptoms and manage complications
- Vitamin A can be used for severe cases in children, per [CDC guidelines](#)

Additional Measles Resources from the CDC:

- [Measles Information for Healthcare Providers](#)
- [Measles Fact Sheet](#)
- [Measles Vaccination Information](#)
- [Provider Resources for Vaccine Conversations with Parents](#)

