



## MARYLAND Department of Health

### **For Clinicians: Measles Frequently Asked Questions**

**1. An adult patient born after 1957 is at increased risk for measles exposure, and doesn't have an immunization record available. How should I proceed?**

People at increased risk for measles exposure include people planning to travel to areas with measles outbreaks (see list of measles outbreaks reported to CDC here: <https://www.cdc.gov/measles/cases-outbreaks.html>), or who might have contact with visitors from these areas.

Many adults born after 1957 might have only received 1 dose of MMR vaccine. If a patient is at increased risk for exposure to measles, and does not have evidence of measles immunity, clinicians should consider giving a second dose of vaccine.

Acceptable presumptive evidence of immunity against measles includes at least one of the following:

- Written documentation of adequate vaccination
- Laboratory evidence of immunity
- Laboratory confirmation of measles
- Birth before 1957

The Advisory Committee on Immunization Practices (ACIP) does not recommend serologic testing ("titers") after vaccination, as commercial tests might not be sensitive enough to reliably detect vaccine-induced immunity.

However, in certain scenarios, providers and their patients may choose to obtain serologic testing ("titers") to evaluate measles immunity, rather than immediately giving the second dose of vaccine. This decision might be impacted by vaccine availability, clinical considerations, logistical and administrative considerations, and/or patient or provider preference.

If serologic testing demonstrates immunity, no additional vaccine is recommended. If serologic testing shows no immunity, or is equivocal, vaccine should be given.

**2. An adult patient born before 1957 is at increased risk for measles exposure, and doesn't have an immunization record available. How should I proceed?**

In general, birth before 1957 is considered acceptable presumptive evidence of immunity against measles.

However, if prior exposure to measles is uncertain in a patient born before 1957, AND that patient is at increased risk for measles exposure, clinicians should consider giving MMR vaccine.

People at increased risk for measles exposure include those planning to travel to areas with measles outbreaks (see list of measles outbreaks reported to CDC here: <https://www.cdc.gov/measles/cases-outbreaks.html>), or who might have contact with visitors from these areas.

**3. Is there harm in giving MMR vaccine to a person who might already be immune to one or more of the vaccine viruses?**

No, there is no known increased risk of serious adverse event if a third dose of MMR is administered to a person who is already immune.

**4. If a patient has a documented history of appropriate MMR vaccination, should titers be checked to ensure immunity to measles?**

No, in a patient with a documented history of appropriate MMR vaccination, the ACIP does not recommend checking titers after vaccination.

**5. If a child receives the second dose of MMR vaccine before the 4<sup>th</sup> birthday (i.e. age 1-3 years), will they need a third dose of vaccine before starting school?**

No. As long as a child received both MMR vaccines after the 1<sup>st</sup> birthday, and the 2<sup>nd</sup> dose is administered at least 28 days after the first dose, no additional vaccine is indicated.

**6. What are the contraindications and precautions for the MMR vaccine?**

Per 2013 ACIP recommendations, contraindications for MMR vaccine include:

- History of anaphylactic reactions to neomycin,
- History of severe allergic reaction to any component of the vaccine,
- Pregnancy, and
- Immunosuppression, including:
  - Primary or acquired immunodeficiency, including persons with immunosuppression associated with cellular immunodeficiencies, hypogammaglobulinemia, dysgammaglobulinemia and AIDS or severe immunosuppression associated with HIV infection;
  - Blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic system;
  - Patients who have a family history of congenital or hereditary immunodeficiency in first-degree relatives (e.g., parents and siblings), unless the immune competence of the potential vaccine recipient has been substantiated clinically or verified by a laboratory; OR

- Patients who are receiving systemic immunosuppressive therapy, including corticosteroids  $\geq 2$  mg/kg of body weight or  $\geq 20$  mg/day of prednisone or equivalent for persons who weigh  $> 10$  kg, when administered for  $\geq 2$  weeks

Precautions for MMR and MMRV vaccines include recent ( $\leq 11$  months) receipt of an antibody-containing blood product, concurrent moderate or severe illness with or without fever, history of thrombocytopenia or thrombocytopenic purpura, and tuberculin skin testing.

More information is available at

<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>

**7. Should household and close contacts of immunocompromised persons receive the MMR vaccine?**

Immunocompromised persons are at high risk for severe complications if infected with measles. All family and other close contacts of immunocompromised persons aged  $\geq 12$  months should receive 2 doses of MMR vaccine unless they have other evidence of measles immunity

**8. What are the recommendations for healthcare personnel and measles immunity?**

All persons who work in healthcare facilities should have presumptive evidence of immunity to measles, mumps and rubella through one or more of the following:

- Written documentation of 2 doses of live measles virus-containing vaccine
- Laboratory evidence of immunity
- Laboratory confirmation of measles
- Birth before 1957\*

\*For unvaccinated personnel born before 1957 who lack laboratory evidence of measles, immunity or laboratory confirmation of disease, healthcare facilities should consider vaccinating personnel with 2 doses of MMR vaccine at the appropriate interval.

Additional information is available in the 2011 Immunization of Health-Care Personnel ACIP recommendations at <https://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf>

**9. If a healthcare worker does not have adequate presumptive evidence of immunity, is it recommended to check “titers”?**

Per ACIP recommendations, prevaccination antibody screening before MMR vaccination for healthcare personnel who does not have adequate presumptive evidence of immunity is not necessary (unless the medical facility considers it cost effective).

**10. If a healthcare worker has 2 documented doses of MMR vaccine and is found to have negative or equivocal measles titer results, is it recommended that the person receive an additional dose of MMR vaccine?**

If a healthcare worker has 2 documented doses of MMR vaccine and is tested serologically and determined to have negative or equivocal measles titer results, it is not recommended that the person receive an additional dose of MMR vaccine.

Such persons should be considered to have presumptive evidence of measles immunity.

Documented age-appropriate vaccination supersedes the results of subsequent serologic testing.

Additional information is available in the 2011 Immunization of Health-Care Personnel ACIP recommendations at <https://www.cdc.gov/mmwr/pdf/rr/rr6007.pdf>

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