DEPARTMENT OF HEALTH

Responding to Measles in the U.S.

MMR VACCINE STRATEGIES AND IMMUNITY GUIDANCE

Measles cases are rising in the United States, prompting questions about measles, mumps, and rubella (MMR) vaccine, titers and immunity. This guide outlines key clinical considerations for vaccination, serologic testing, and travel-related risk.

MMR vaccine recommendations

The MMR vaccine is up to 93% effective after one dose and 97% effective after two. Immunity for the measles component appears to be lifelong with no evidence of significant waning. Below are the Advisory Committee on Immunization Practices (ACIP) MMR vaccine recommendations.

Children

The first dose of MMR vaccine should be given between the ages 12 and 15 months, with a second dose between the ages of 4 and 6 years. The second dose can be given earlier to children 12 months of age or older if it is at least 28 days after the first dose.

Adults

- If born before 1957: Likely had measles as a child and are considered immune. Titers are not needed.
- For those vaccinated between 1963-1967 with inactivated measles vaccine or measles vaccine of unknown type, revaccination is recommended with at least one dose of live attenuated measles vaccine.
- For those at lower risk for exposure and born in or after 1957, at least one dose of MMR is recommended if there is no documentation of MMR, previous measles disease, or previous immunity titers.
- Those at high risk for exposure who will need two doses of MMR vaccine are:
  - Health care personnel born in or after 1957.
  - Health care personnel in a measles outbreak setting regardless of birth year.
  - Students in college, university, and other post-secondary educational institutions.

Titer considerations

- Serologic testing is generally not recommended.
- The simplest approach to resolving concerns about MMR vaccination is to revaccinate.
- The cost of serologic testing may be a deterrent to patients and may lead to a missed opportunity to vaccinate.
- Serologic testing for immunity before MMR vaccination is not necessary for health care personnel that don't have documented immunity, unless deemed cost-effective by the medical facility.
- Serologic testing for immunity is not recommended for health care personnel who have two documented doses of MMR.

Travel considerations

It is important to receive the MMR vaccine at least two weeks before travel to allow the body sufficient time to develop protective immunity.

International travel

- An early MMR dose is recommended for infants 6 to 11 months of age* who are traveling internationally.

- Two documented doses separated by 28 days are recommended for anyone 12 months of age or older who is traveling internationally and does not have evidence of immunity.
- For more information refer to CDC Travelers' Health: Destinations (wwwnc.cdc.gov/travel/destinations/list)

Living in/visiting U.S. outbreak areas

- For provider consideration:
  - An early MMR dose for infants ages 6 to 11 months of age* traveling within the U.S. to areas with ongoing outbreaks can be considered given the increase in measles nationwide.
  - Two documented doses of MMR separated by 28 days can be considered for anyone 12 months of age or older living in or visiting an area experiencing an outbreak.
  - Follow state and local guidance in areas with ongoing community-wide transmission of measles on CDC: Measles Cases and Outbreaks (www.cdc.gov/measles/data-research/index.html)

*Any dose of MMR vaccine given prior to 12 months old does not count toward the child's recommended number of MMR doses and must be repeated after 12 months of age.

Challenges to locating childhood immunization records

If a person is unsure about their vaccination status, an attempt to locate missing records should be made whenever possible by contacting previous healthcare providers, reviewing state or local immunization information systems (IIS, registries), and searching for a personally held record. It can be difficult for adults to find pediatric immunization records. The Minnesota Immunization Information Connection (MIIC) was created in 2002; therefore, many adults do not have their childhood vaccinations (i.e., MMR) documented in MIIC.

If a record is not available in MIIC, other sources of immunization information may be needed to determine vaccination status. Other sources include paper or electronic clinic records, baby books, school or child care, and other state immunization information systems.

If records cannot be located or are unavailable due to the patient's circumstances, those without adequate documentation should be considered susceptible and MMR vaccine should be administered according to current recommendations. Although unnecessary doses are not preferred, receiving extra doses of MMR vaccine is medically safe and does not pose a health risk.

Additional resources

- Measles Information for Health Professionals (www.health.state.mn.us/diseases/measles/hcp/index.html)
- CDC: Immunization Schedules (www.cdc.gov/vaccines/hcp/imz-schedules/index.html)
- Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013 (www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm)
- CDC: Vaccines & Immunizations: Special Situations (www.cdc.gov/vaccines/hcp/imz-best-practices/special-situations.html)
- CDC HAN: Expanding Measles Outbreak in the United States and Guidance for the Upcoming Travel Season (www.cdc.gov/han/php/notices/han00522.html)
- CDC: Be Ready for Measles Toolkit (www.cdc.gov/measles/php/toolkit/index.html)

The Minnesota Department of Health will update providers if there are any changes to CDC recommendations. If you have clinical vaccine questions, email health.vaccineSME@state.mn.us.

Minnesota Department of Health
PO Box 64975, St. Paul, MN 55164-0975
www.health.state.mn.us/immunize
07/11/2025
To obtain this information in a different format, call: 651-201-5414.