



DEFENSE HEALTH AGENCY
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MEMORANDUM FOR: DoD Personnel and Beneficiaries

FROM: Chief, Immunization Healthcare Division

SUBJECT: Measles Outbreaks

Here are answers to some of the more frequently asked questions about measles in the Department of Defense:

Q1. Is the U.S. military affected by measles outbreaks?

Answer: As part of the U.S. and global community, military members and their families share concerns about increased rates of measles. Measles in military service members is very rare because of strong vaccine requirements. Measles is a greater risk for family members, especially those who are less-than-fully vaccinated because of young age, medical conditions, or other reasons.

Q2. What are the military's policies regarding measles vaccine?

Answer: Like all U.S. healthcare, U.S. military medicine follows the recommendations of the U.S. Centers for Disease Control and Prevention and Advisory Committee on Immunization Practices (CDC/ACIP). The overarching reference for measles protection best practice is: CDC. Prevention of measles, rubella, congenital rubella syndrome, and mumps. MMWR 2013:62(4):1-40. <https://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf>

Q3. Should infants get extra vaccines because of measles outbreaks?

Answer: Routine administration of measles vaccines (MMR or MMRV) should not begin before 12 months of age. However, children younger than 12 months of age require special consideration for measles protection. Children ages 6-12 months who travel internationally should receive one dose of MMR vaccine; they should subsequently receive two doses of MMR (or MMRV) after age 12 months and before school entry. During measles outbreaks in the U.S., recommendations may also be made to give one dose of MMR to children ages 6-12 months. Such recommendations are made by the cognizant public health authority who will define the time and location parameters of an outbreak; this was done in NY in April 2019. The U.S. military will support such recommendations for military families in affected areas.

Q4. Should children get extra vaccines because of measles outbreaks?

Answer: Children older than 12 months of age should not get "extra" vaccines during measles outbreaks. However, all children should maintain evidence of measles immunity. CDC/ACIP define evidence of measles immunity in children as: (a) documentation of two doses of MMR (or MMRV) vaccine after 12 months of age, OR (b) laboratory evidence of immunity or past disease.

Q5. Should adults get extra vaccines because of measles outbreaks?

Answer: Adults should not get "extra" vaccines during measles outbreaks. However, all adults should maintain evidence of measles immunity. CDC/ACIP define evidence of measles immunity as: (a) documentation of adequate vaccination, OR (b) laboratory evidence of immunity or past disease, OR (c) birth before 1957.

Q6. Why is a “3rd dose of MMR” recommended during mumps outbreaks, but not during measles outbreaks?

Answer: MMR vaccines are highly effective at providing lifetime protection against measles. In contrast, MMR vaccines are less consistently effective against mumps, and mumps immunity may wane over time. CDC/ACIP therefore recommend extra MMR vaccination during mumps outbreaks, at the discretion of public health authorities who define the time and location parameters of a mumps outbreak. When extra MMR doses are recommended, CDC/ACIP advise that no one should receive more than three lifetime doses.

Q7. What is “documentation of adequate vaccination” against measles?

Answer: Written documentation of vaccination includes vaccine type, date, administration details, and clinic stamp; documentation may be in a medical record or an official immunization record (e.g., “yellow shot card”). Children should have two documented doses of MMR (or MMRV) administered after age 12 months and separated by at least 28 days. Adults should have at least one documented lifetime dose of a live-measles vaccine (like MMR or MMRV). Adults should have two documented lifetime doses of live-measles vaccine if they are international travelers, students, healthcare workers, household contacts of immune-compromised people, or otherwise considered at higher risk of measles exposure.

Q8. What is “laboratory evidence of immunity” against measles?

Answer: When people cannot provide documentation of adequate vaccination against measles, a blood test may demonstrate the presence of measles antibodies in sera. This serologic test is often called a “titer” test. If any serologic test in a person’s life ever demonstrates measles antibodies, CDC/ACIP consider this evidence of measles immunity.

Q9. Should people get extra serologic testing for immunity because of measles outbreaks?

Answer: No. After evidence of measles immunity has been established by either documented vaccination or laboratory testing, serologic testing should not be performed. If serologic testing is performed after evidence of immunity has been established, results of serologic testing should be ignored. CDC/ACIP make this recommendation because, after measles immunity has been established, it is possible for measles antibodies to become undetectable in sera even though immunity is maintained. In these cases, an immune anamnestic (memory) response should occur after actual viral exposure and the person will still be protected from measles.

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