**Measles, Mumps, and Rubella (MMR) Vaccine**

**For Adults, 19 Years of Age and Older**

**Precautions and Contraindications**

Screen all patients for precautions and contraindications to immunization.

**Recommended Schedule:**

**All adults born in 1957 or after** who do not have a medical contraindication should receive at least one dose of MMR vaccine unless they have documentation of at least one dose of measles, mumps-, and rubella-containing vaccine or evidence of immunity to measles, mumps, and rubella. Evidence of immunity would be documentation of physician diagnosed measles, documentation of physician diagnosed mumps, or laboratory evidence of immunity to measles, mumps, and / or rubella.

**A second dose of MMR vaccine is recommended for some adults born in 1957 or after who**:

* Are students attending colleges and other post-high school educational institutions
* Plan to travel internationally
* Are close contacts of a suspected or confirmed case of measles or mumps and who have documentation of only one dose of MMR vaccine

**A third dose of MMR vaccine is recommended for persons previously vaccinated with two doses of a mumps virus-containing vaccine who** are identified by public health authorities as being part of a group or population at increased risk for acquiring mumps because of an outbreak.

**All adults born before 1957** are generally considered immune to measles, mumps, and rubella. Adequate vaccination of persons who travel outside the United States would be two doses of MMR vaccine. Individuals, who are close contacts of a suspected or confirmed case of measles or mumps and have no documented doses of MMR vaccine, may receive at least one dose of MMR vaccine.

**Health Care Workers** should have presumptive evidence of immunity to measles, mumps, and rubella, which includes any of the following:

* Written documentation of vaccination with:
	+ 2 doses of MMR vaccine administered at least 28 days apart OR
	+ 2 doses of live measles vaccine administered at least 28 days apart AND
	+ 2 doses of live mumps vaccine administered at least 28 days apart AND
	+ 1 dose of live rubella vaccine
* Laboratory evidence of immunity
* Laboratory confirmation of disease (measles and mumps), or infection or disease (rubella)

**Revaccination with MMR** vaccine is recommended for certain persons who should be considered unvaccinated and need to receive at least one dose of a measles-containing vaccine. (See the Pink Book, 13th edition, for information.)

**Dosage and Route**

* 0.5 mL subcutaneously

**Anatomical Site**

* Outer aspect of the upper arm, with 23-25 gauge, 5/8” needle.

**Precautions**

* **Pregnancy** Do not vaccinate women who are pregnant. Women who do not have evidence of immunity should receive MMR vaccine upon completion or termination of pregnancy and before discharge from the healthcare facility. MMR or measles, mumps, or rubella vaccination during pregnancy should not ordinarily be a reason to consider interruption of pregnancy.
* Women should avoid getting pregnant for at least 1 month after getting MMR vaccine.1
* Moderate or severe acute illness.
* If blood, plasma, and/or immune globulin were given in past 11 months, see ACIP statement General Recommendations on Immunization regarding time to wait before vaccinating.
* History or thrombocytopenia or thrombocytopenic purpura

1October 2001, the ACIP shortened its recommended period to avoid pregnancy after receipt of rubella-containing vaccine from 3 months to 28 days, <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5049a5.htm>.

Vaccine Information Statements (VISs) for MMR vaccine, last revised in 2018, include a precaution that “Women should avoid getting pregnant for at least 1 month after getting MMR vaccine”

Note that both the ACIP recommendations and the text of the MMR VIS differ from the package insert precautions to avoid pregnancy for three months after vaccination.

**Contraindications**

As described in the package insert, **DO NOT** give MMR vaccine to:

* Individuals with a hypersensitivity to any component of the vaccine, including gelatin
* Women who are pregnant
* Individuals with a history of anaphylactic or anaphylactoid reactions to neomycin
* Individuals receiving immunosuppressive therapy including high-dose systemic corticosteroids
* Individuals with blood dyscrasias, leukemia, lymphomas of any type, or other malignant neoplasms affecting the bone marrow or lymphatic systems
* Individuals with primary and acquired immunodeficiency states, including AIDS
* See package insert WARNING about administering MMR to individuals with a history of anaphylactic or other immediate hypersensitivity reactions (e.g., hives, swelling of the mouth and throat, difficulty breathing, hypotension, or shock) after egg ingestion

**Adverse Events**

* See the product’s package insert
* See Adverse Events Following Vaccinations page of this section

**Storage and Handling**

* MMR may be stored in the refrigerator or freezer, (It is recommended to keep MMR in the freezer to prevent confusion with MMRV)
* MMR vaccine can be refrigerated for up to 8 hours after reconstitution and must be protected from light.

**Other Important Notes**

* Breastfeeding is not a contraindication to receipt of MMR vaccine
* Immune Globulin (IG) is not to be given concurrently with MMR

**Tuberculin Testing and Live Vaccines**

Recommendations for use of the tuberculin skin test are independent of those for immunization. Tuberculin testing at any age is not required before administration of live-virus vaccines. A tuberculin skin test (TST) can be applied at the same visit during which these vaccines are administered. Measles vaccine temporarily can suppress tuberculin reactivity for at least 4 to 6 weeks. The effect of live-virus varicella, yellow fever, and live-attenuated influenza vaccines on tuberculin skin test reactivity is not known. In the absence of data, the same TST spacing recommendation should be applied to these vaccines as described for MMR. There is no evidence that inactivated vaccines, polysaccharide vaccines or recombinant or subunit vaccines or toxoids interfere with immune response to TST.

**Tuberculin Skin Testing (TST) and Measles, Mumps, Rubella Vaccine (MMR)**

* Apply TST at same visit as MMR (preferred strategy)
* Apply TST first and administer MMR when TST is read (least favored option because receipt of MMR is delayed) (least preferred strategy)
* Delay TST at least 4 weeks if MMR is given first.

**Resources**

Marin M, Marlow M, Moore K, Patel M. Recommendation of the Advisory Committee on Immunization Practices for Use of a Third Dose of Mumps Virus–Containing Vaccine in Persons at Increased Risk for Mumps During an Outbreak. MMWR Morb Mortal Wkly Rep 2018;67:33–38., <https://cdc.gov/mmwr/volumes/67/wr/mm6701a7.htm>

Advisory Committee on Immunization Practices (ACIP) Resolution No. 10/17-3: Vaccines to Prevent Measles, Mumps, Rubella, and Varicella,

[www.cdc.gov/vaccines/programs/vfc/providers/resolutions.html](http://www.cdc.gov/vaccines/programs/vfc/providers/resolutions.html).

Vaccine Information Statement. MMR (Measles, Mumps, and Rubella) Vaccine: *What You Need to Know.*  Centers for Disease Control and Prevention. Last revised 2/12/2018,
<https://www.cdc.gov/vaccines/hcp/vis/vis-statements/mmr.pdf>.

Last updated August 1, 2012 and July 1, 2018