



Medi-Cal Rx

Measles Vaccination Prevents Outbreaks, Protects Californians

April 7, 2025

Disclaimer: This article was published by the Medi-Cal Drug Use Review (DUR) Program and is not an official policy of the Department of Health Care Services (DHCS).

Background

Measles is a highly contagious air-borne disease that can result in serious complications, including pneumonia, encephalitis, other long-term illnesses, and death.^{1,3} On March 7, 2025, the Centers for Disease Control and Prevention (CDC) issued a [Health Alert Network \(HAN\) Health Advisory](#) to provide guidance for clinicians and the public in response to a measles outbreak in Texas and New Mexico. The HAN Health Advisory reported that over 200 measles cases have been related to the outbreak so far, with almost all cases occurring among unvaccinated individuals. Two deaths have occurred due to measles infection since the start of the outbreak, including the death of a school-aged child and one adult.² The CDC advised clinicians to confirm patients are up to date on measles vaccinations as recommended by the Advisory Committee on Immunization Practices (ACIP).²⁻⁴

While high levels of immunity in the general population ultimately limit measles outbreaks, measles readily spreads in communities and social networks with lower coverage.¹ The measles-mumps-rubella (MMR) vaccine is highly effective in preventing measles infection, providing 93% protection after the first dose of vaccination and 97% protection after the second dose.^{3,4} Most people do not have any [side effects](#) from the vaccine. The side effects that might occur are usually mild and may include soreness, redness, or swelling where the vaccine was given, fever, mild rash, and temporary pain and stiffness in the joints.^{3,4}

Vaccination is the only proven preventive measure for contracting measles. While there is [evidence](#) that vitamin A therapy can help to reduce mortality in patients who have already contracted measles, it is important to emphasize that vitamin A does not prevent measles. Because vitamin A is fat soluble, the body stores excess amounts, and these levels can accumulate and result in liver toxicity.

The California Department of Public Health (CDPH) provides updates on current measles activity in California on the [CDPH Measles webpage](#). Most measles cases in the U.S. result from international travel so it is important that you and your family are up to date on all vaccines before traveling abroad. During a recent [webinar](#) from the Immunization Branch, CDPH emphasized the importance of measles vaccinations as recommended by ACIP in light of the current outbreaks, including routine vaccinations in children and before international travel (**Table 1**).

Table 1. Timing of MMR Vaccination.^{3,4}

| Age Group | Routine Vaccination Schedule | Recommendations for International Travel |
|--|---|--|
| Infants 6 – 11 months | Routine vaccinations start at 12 months of age | Administer one extra, early dose of measles vaccination before international travel, followed by the routine 2-dose series starting at 12 – 15 months of age |
| Children between 12 months and 6 years | Administer the first dose of MMR vaccine between age 12 – 15 months, followed by the second dose between 4 – 6 years of age * | Administer the 2-dose MMR series before international travel, each dose separated by 28 days |
| Children, adolescents, and adults older than 6 years | If not previously vaccinated, administer one dose of MMR vaccine, followed by the second dose 28 days later | |
| Pregnant people | Should not receive the MMR vaccine | |

* The second dose of MMR can be administered earlier than 4 – 6 years of age, but the second dose must be given at least 28 days after the first dose.

Providers are encouraged to review the full guidance documents provided by ACIP for more detailed information about measles vaccination:

- [Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013: Summary Recommendations of the Advisory Committee on Immunization Practices \(ACIP\)](#)
- [Measles, Mumps, Rubella Vaccine \(PRIORIX\): Recommendations of the Advisory Committee on Immunization Practices — United States, 2022](#)

Although the vaccination coverage rate among kindergarteners in California is typically above 95% at the state level, vaccination rates vary significantly across the state. A [Kindergarten and First-Grade Immunization Assessment](#) for the 2022-2023 school year reported the number of counties reporting kindergarten MMR rates below 95% increased from 16 (28%) in 2021-2022 to 19 (33%) in 2022-2023, including 6 counties with rates lower than 90%.⁵

Several measles vaccination resources have been created by CDPH, including a [Measles Communication Toolkit](#) to promote measles vaccination and awareness, and the [Measles Resources for Healthcare Providers webpage](#).

Individuals who are unsure of their vaccine history should attempt to find their records using the [Digital Vaccine Record \(DVR\)](#) or call their doctor's office and/or school. If the records cannot be found, the individual should be vaccinated in accordance with recommendations from ACIP.^{3,4} An extra dose of MMR vaccine is not harmful.

Clinicians can also use the California Immunization Registry (CAIR2) to identify patients in their practice setting who may not be up to date on the measles vaccination series. More

information about generating patient-specific reports in CAIR2 can be found in the [How to Run a CAIR2 Patient MMR Report for Your Clinic](#) instructional video.

Additional Measles Vaccination Resources for Healthcare Professionals

- [CDC Webpage for Measles Vaccine Recommendations](#) | [MMR ACIP Vaccine Recommendations](#)
- [MMR Vaccine Information Statements in Several Languages \(CDC\)](#)
- [Measles: Questions and Answers – Information About the Disease and Vaccines](#)
- [Ask the Experts: MMR \(Measles, Mumps, and Rubella\)](#)

Additional Measles Vaccination Resources for Patients

- [Put Measles on the Spot: Immunize your Family](#) (CDPH)
- [Measles Communication Toolkit](#) (CDPH)
- [Measles Vaccination](#) (CDC)
- [3 Things Parents Need to Know About Measles and Vitamin A](#) (National Foundation for Infectious Diseases)
- [Visiting Another Country? Protect Your Family. Think Measles.](#) (CDPH) | [Spanish](#) | [Russian](#) | [Tagalog](#) | [Ukrainian](#) | [Other Languages](#)
- [Preventing Measles Before and After Travel Fact Sheet](#) (CDC)

References

1. California Department of Public Health (CDPH). Measles. California Department of Public Health. Last Updated: March 18, 2025. Available at: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/measles.aspx#>. Accessed March 19, 2025.
2. Health Alert Network (HAN) - 00522 | Expanding Measles Outbreak in the United States and Guidance for the Upcoming Travel Season. Available at: <https://www.cdc.gov/han/2025/han00522.html>. Accessed March 19, 2025.
3. Krow-Lucal E, Marin M, Shepersky L, Bahta L, Loehr J, Dooling K. Measles, Mumps, Rubella Vaccine (PRIORIX): Recommendations of the Advisory Committee on Immunization Practices - United States, 2022. *MMWR Morb Mortal Wkly Rep*. 2022;71(46):1465-1470. Published 2022 Nov 18. Available at: <http://dx.doi.org/10.15585/mmwr.mm7146a1>. Accessed March 19, 2025.
4. McLean HQ, Fiebelkorn AP, Temte JL, Wallace GS; Centers for Disease Control and Prevention. Prevention of Measles, Rubella, Congenital Rubella Syndrome, and Mumps, 2013: Summary Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep*. 2013;62(RR-04):1-34. Available at: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6204a1.htm>. Accessed March 19, 2025.
5. School Assessments Unit, Immunization Branch, Division of Communicable Disease Control, Center for Infectious Diseases, California Department of Public Health. *Kindergarten and First Grade Immunization Assessment, 2022-2023*. Available at: <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/School/tk-12-reports.aspx>. Accessed March 19, 2025.