



DEPARTMENT OF
HEALTH AND HUMAN SERVICES

Promoting and protecting health, well-being, self-sufficiency, and safety of all in Marin County.

PUBLIC HEALTH ADVISORY



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Measles Update

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DIRECTOR

Dear Colleagues:

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PUBLIC HEALTH OFFICER

This advisory provides updated recommendations for potential measles exposures and vaccinations. Marin County residents have not been infected with measles since 2015, and the risk to the public remains low. On March 7, 2025, the Centers for Disease Control and Prevention (CDC) issued a [Health Advisory](#) to guide prevention and monitoring.

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Background

Measles is a highly contagious airborne disease caused by a virus that can lead to severe complications and death. In the United States, routine measles vaccination began in 1963, leading to a 60% reduction in measles cases by 1966. In 2001, the World Health Organization (WHO) aimed to eliminate measles worldwide by 2020. During 2000–2018, annual reported measles incidence decreased 66%, and annual estimated measles deaths decreased 73%.

Millions of children missed vaccinations during the COVID-19 pandemic, resulting in an 18% increase in estimated measles cases and a 43% increase in estimated measles deaths in 2022 compared with 2021. In 2023, the estimated global coverage with the first dose of measles-containing vaccine (MCV1) declined to 81%, the lowest since 2008. Progress toward eliminating measles will require strengthened surveillance and improved vaccine coverage.

Actions Requested of Providers

- When evaluating patients with a febrile rash illness:
 - If possible, isolate the patient immediately in an airborne infection isolation room (AIIR).
 - Follow [CDC](#) and California Department of Public Health ([CDPH](#)) infection control guidance.
 - Assess for risk factors and measles immunization status.
- Suspect measles if compatible symptoms **and** risk factor(s) are present.
 - Symptoms: At least one of the “3 Cs” – cough, coryza, conjunctivitis, **and** febrile rash illness.
 - Risk factors: Travel outside of North America, transit through U.S. international airports, or interaction with international visitors (including at U.S. tourist attractions), or travel within the United States in areas of high measles activity (currently, Oklahoma, Texas, and New Mexico) during the past three weeks

- If you suspect measles:
 - [Isolate patients with suspected measles](#) immediately, ideally in a single-patient airborne infection isolation room (AIIR) or a private room with a closed door until an AIIR is available.
 - [Protect healthcare providers](#) by adhering to standard and airborne precautions
 - Post-exposure prophylaxis (PEP) is an option for someone exposed to measles without evidence of immunity. A Measles, Mumps, and Rubella (MMR) vaccine may be administered within 72 hours of exposure or IgG (within 6 days). Vaccine and immunoglobulin should not be co-administered.
- Ensure all patients without other evidence of immunity, especially those planning international travel, are up to date on [MMR vaccine](#) per routine ACIP recommendations:
- Contact Marin County Public Health immediately by telephone to report the case and to discuss testing and control measures. Call 415-473-4163 during business hours; after hours, 415-479-5305.
- Healthcare employers are required to provide the protections required by [Section 5199](#). Per the Cal/OSHA ATD, the MMR vaccine must be offered to non-immune healthcare personnel at no cost.

Important Clinical Points

Measles symptoms appear 7 to 14 days after contact with the virus. Measles typically begins with:

- High fever (may spike to more than 104°)
- Cough
- Runny nose (coryza)
- Red, watery eyes (conjunctivitis)

Some cases also report diarrhea, nausea, and vomiting. Koplik's spots, clustered white lesions on the buccal mucosa, and a characteristic sign of measles may appear two to three days later. The measles rash typically occurs three to five days after the first symptoms. It starts as a red, blotchy maculopapular rash, usually first on the face, along the hairline, and behind the ears. This rash spreads downward to the trunk and then to the arms and legs. The rash fades in approximately one week. Atypical rashes have been reported.

Complications of measles, including otitis media, bronchopneumonia, and laryngotracheobronchitis (croup), occur commonly in young children and immunocompromised hosts.

Incubation and transmission

The incubation period for measles averages 10 to 12 days from exposure to prodrome and 14 days (range 7 to 21 days) from exposure to rash onset. A person with measles is contagious from about four days before the rash appears until four days after it appears.

There are no asymptomatic infectious carriers. Measles is highly contagious, with more than 90% secondary attack rates among exposed susceptible persons in close contact. Patients are contagious from 4 days before to 4 days after the rash appears. Of note, sometimes immunocompromised patients do not develop the rash. Immunocompromised patients who may have prolonged excretion of the virus in respiratory tract secretions can be infectious for the duration of the illness.

Exposure

- Sharing the same airspace with a person infected with measles, e.g., in the same classroom, home, clinic waiting room, airplane, etc., or being in these areas up to 1 hour after the infectious person has left the area. *Exposure criteria apply even if the contagious person is masked.*
- No minimum duration has been established for exposure. It is presumed that longer-duration and/or face-to-face exposures are more likely to result in measles transmission.
- Suspected or confirmed measles cases should be isolated during their infectious period.

Resources

Centers for Disease Control and Prevention. (2012, February 3). *Global eradication of smallpox, 1980*. MMWR. Morbidity and Mortality Weekly Report, 61(4), 53–57. Access at <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6104a3.htm#>

CDC. [Interim Measles Infection Prevention Recommendations in Healthcare Settings](#)

CDC. [For Healthcare Professionals - Diagnosing and Treating Measles](#)

CDPH. [Measles Resources – California Vaccines for Children \(VFC\)](#)

Minta AA, Ferrari M, Antoni S, et al. Progress Toward Measles Elimination — Worldwide, 2000–2022. MMWR Morb Mortal Wkly Rep 2023;72:1262–1268. Access at <http://dx.doi.org/10.15585/mmwr.mm7246a3>

Patel MK, Dumolard L, Nedelec Y, et al. Progress Toward Regional Measles Elimination — Worldwide, 2000–2018. MMWR Morb Mortal Wkly Rep 2019;68:1105–1111. DOI: <http://dx.doi.org/10.15585/mmwr.mm6848a1>.

Sincerely,

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