The US saw a record number of measles cases in 2014, 644 cases, which occurred in 27 states. We recognize this sounds alarming and is the highest number of measles cases since measles was eliminated from the US in 2000. However, it is still far lower than the rates of 3-4 million cases that were seen each year before the measles vaccine was introduced in 1963, and does not represent extensive community level circulation.

In California, we are experiencing a measles outbreak with most cases linked to an exposure in Disney Land in December 2014. There are a total of 107 confirmed cases, and 82% of the cases are in people who were not vaccinated against measles.


In most of these communities and the majority of California, the level of immunity against measles is high because of high rates of MMR vaccination. Sustained measles transmission is unlikely in communities with MMR vaccination rates above 92%. Most communities have MMR vaccination rates higher than this threshold; therefore, an individual’s risk of measles exposure is currently low. If the situation changes, you will be notified.

1. What are the signs and symptoms of measles infection?

Measles is a highly infectious, airborne virus infection that typically begins with fever, cough, runny nose and red eyes, and within a few days a red rash appears, usually first on the face and then spreading downward to the rest of the body. If your child is exposed to someone with symptoms, please notify your health care provider ASAP. If the exposure is after hours, please go to the Emergency Room and have your provider paged.
2. Is the current outbreak concerning for my immunocompromised child?

Despite the very broad news coverage, the circulation of measles is still not extensive in individual communities in California. Even in the current outbreak, there is a low risk for measles exposure since the virus is NOT broadly circulating. Most communities have rates of immunity against measles that is higher than the level needed for greater circulation to occur. Therefore the risk of your child being exposed to measles is low. This risk may increase if you reside in an area with low vaccine rates, or a case is identified in your close community setting (e.g. sports team, school, religious institution, or work place). If this is the case please notify your health care provider immediately.

3. How can I protect my immunocompromised child from being exposed to measles?

The best way to protect your child is make sure that all people who come into close contact with your child are immune. This means that all household members and other close contacts should have documented immunity against measles (either through known immunization or blood tests that confirm immunity). Vaccination is the most important strategy to prevent measles in people with normal immune systems and to stop spread to other people. Two doses of measles containing vaccine (MMR vaccine) are more than 99 percent effective in preventing measles. In communities with high rates of immunity, measles does not circulate and the risk of exposure is low.

4. My child is immunocompromised and cannot get the measles vaccine, but other household members can. Do I need to quarantine my child from family members who receive a MMR?

No, recipients of the MMR vaccine who have a normal immune system pose no infectious risk to household members, even if they develop a fever and rash as a result of immunization. However, if this reaction occurs in a household member, please see your health care provider to ensure that the reaction is a result of the vaccine.

5. What are the rates of MMR immunization in my child’s school?

Please see the link below for published immunization rates from the California Department of Public Health. Click on the “data” reports not the summary reports to find specific school information. You can also check with your school directly. If you need any assistance, please contact your health care provider or your local public health department.


6. With the current outbreak, should my child wear a mask? If yes, surgical or N95?

There is no current recommendation to protect your child from a measles exposure by wearing a mask. The measles virus is not circulating extensively in communities to warrant masking. If the situation changes, you will be notified.
Screening questions for acute measles or asymptomatic but in incubation period:
- Presence of fever and rash may be associated with cough, coryza and/or conjunctivitis
- Known exposure to measles in the last 21 days
- If patients screened by phone, please tell patients not to come into a clinic or waiting area, but to have a family member report to the registration area, and wait for directions to have the patient placed.
- If screening is at time patient presents to clinic please see directions below.

For more detailed screening to evaluate for acute measles:

Patient placement:
Patient suspected of measles should be given a mask and immediately placed in an airborne infection isolation room (AIIR). If there is no AIIR available, place patient in a single room and keep the door closed. If the plan is to send child to the ER, notify ER to expect a patient with suspected measles.

If you suspect measles in a patient, CALL:
1) LPCH Infection prevention and control at 650-497-8447 (If ED- call Stanford IPC 650-725-1106)
2) Pediatric Infectious disease MD on call through operator 650-723-6661
3) Call public health of county of residence of the patient.
   Santa Clara County Public Health Department at 408-885-4214
   after hours call county communications at 408-998-3438 and ask for health officer on call.
   San Mateo County Public Health Department 650-573-2346

*Specimens for testing can be sent to county health lab only after consulting with the public health department.

Laboratory testing for measles:
1) Respiratory swab for Measles PCR - Order as "unlisted chemistry order"
   - Throat swab is preferred - vigorously swab tonsillar areas and posterior nasopharynx with a sterile dacron swab and place swab in viral transport medium.
   OR
   - Nasopharyngeal swab - firmly rub the nasopharyngeal passage with a sterile dacron swab and place swab in viral transport medium.
2) Urine for measles PCR - Order as "unlisted chemistry order"
   -Collect 50-100 ml urine in a sterile container (does not need to be a sterile sample)
3) Measles IgG/IgM testing - Order as "unlisted chemistry order"
   -Send 7-10 ml of blood (minimum volume 1ml or refer to capillary blood specimen collection in the link below) in a red top or serum separator tube. Obtain blood only if rash has been present for at least 4 days or more.

*If child has respiratory symptoms, consider sending respiratory virus PCR to evaluate for other respiratory viral infections.

For more details:

Prophylaxis for *exposed:
1) Measles vaccine (for >6 months of age and if not contraindicated) is the biologic of choice if given within 72 hours of exposure.
2) When immunization can not be used for infants <12 months and immunocompetent contacts intramuscular immunoglobulin 0.5ml/Kg (max 15ml)
3) For pregnant women without evidence of immunity and severely immunocompromised persons - IV immunoglobulin (IVIG) 400mg/Kg x 1

*Immunoglobulin prophylaxis has to be given within 6 days of exposure. Administer at the earliest for better efficacy.

For more details: http://www.cdph.ca.gov/HealthInfo/discond/Documents/CDPHIGforMeaslesPEP.pdf

*Living in the same household, spending time in a room with an infected person or using a room previously occupied by an infected person within a span of 2 hours. Any duration of contact is considered a significant exposure. Note that patient with measles is contagious 4 days prior to onset of rash until 4 days after onset of rash