Pennsylvania
Department of Health

Measles: Recommendations for Colleges and Universities

Measles is a serious viral infection that can disrupt learning due to illness or exposure to the virus. This document provides information for colleges and universities on proactive measures they can take to prepare for a measles response and steps to follow if measles is identified on their campus.

What is measles?

Measles is a very contagious respiratory disease caused by a virus. Before the measles vaccine (MMR) became available, measles was a common childhood disease in the U.S. Symptoms of measles infection include rash, high fever, cough, runny nose, and red, watery eyes. People diagnosed with measles can spread it to others from 4 days before through 4 days after the appearance of the rash (rash onset is considered day 0).

How do people get measles?

Measles is easily spread from person to person. When an infected person talks, coughs, or sneezes, the virus is released into the air and enters another person's body through the nose, mouth, or throat. People can also become sick if they come in contact with the mucus or saliva (spit) from an infected person. The measles virus can live on contaminated surfaces and in the air for up to two hours after an infected person was present.

Can measles virus infection cause complications?

Yes. People infected with measles may have complications, including ear infections and diarrhea, and some need to be hospitalized. Severe complications include pneumonia (infection of the lungs), encephalitis (swelling of the brain), and death. Measles may cause pregnant women to give birth prematurely or have low-birth weight babies.

If a person is exposed to measles, does that mean they will get infected or sick?

An exposure occurs when a person is in the same space (e.g., room, office, waiting room, building) with someone who has measles, or occupies this space within 2 hours after the infected person has left. People are less likely to get sick with measles if they have been appropriately vaccinated. Approximately 90 percent of susceptible (non-immune) people will get measles when they are exposed to someone with the disease.

How do I know if I am considered immune to measles?

People are considered immune to measles if they meet any of the following:

- Written documentation of adequate vaccination—receipt of one or more doses of a measles-containing vaccine administered on or after the first birthday for preschool-age children and adults not at high risk, and two doses of measles-containing vaccine for school-age children and adults at high risk for exposure transmission (i.e., health care personnel, international travelers, and students at post-high school educational institutions); or
- Laboratory evidence of immunity; or

- Born before 1957; or
- Laboratory confirmation of disease.

Where are measles infections and outbreaks commonly found?
Although some world regions have declared measles eliminated, many countries continue to experience significant outbreaks of measles - more specific information: Global Measles Outbreaks | CDC. Several U.S. states are also reporting measles infections and outbreaks – see Measles Cases and Outbreaks | Measles (Rubeola) | CDC.

Why is measles infection a concern on college and university campuses?
Campuses are vulnerable to measles importation and outbreaks because of the combination of several factors:

- Increased exposure opportunities in living and learning areas, such as residence halls, classrooms, dining halls, and campus events,
- A highly transmissible airborne virus,
- Campus members may be exposed to the virus during travel to international and domestic jurisdictions where measles is common or where a measles outbreak is occurring and return to campus infected with measles,
- Staff and students who are under- or un-immunized can easily become infected and spread the virus if exposed.

Plan: Actions for Colleges and Universities to Consider Taking Now:

1. Know how to communicate with the health department.

- Maintain up-to-date contact information and phone numbers for the state/local health department where your college or university is located, including after-hours contact information.
- Ensure campus procedures are aligned with current public health guidance and regulations, including **required reporting of confirmed measles infection**.
- The local or state health department is available for consultation if measles infection is suspected.

2. Establish mandatory or recommend voluntary submission of immunization records for students, faculty, and staff.

- Documentation enables more timely identification of persons who are not immune, if measles is detected on campus.
- Recommend vaccination or a laboratory test to assess immunity to those without documentation or those who are not up to date with measles-containing vaccine.
- If records are not collected, encourage all campus members to discuss whether they are up to date with MMR vaccination.

3. **Ensure there are processes in place to evaluate and test people with clinically compatible illness and a history of travel or exposure to measles.**
   - Health care providers in student health services should be familiar with signs and symptoms of measles, appropriate infection control measures, and recommended testing.
   - Pre-identify an examination room in the health services office where students suspected of being infected can be assessed and tested, if indicated. See additional infection control recommendations here Measles Information for Providers.
   - Student health services should have measles testing supplies available.
   - PA Department of Health approval is needed for measles testing at its public health laboratory. Contact your state or local health department for approval and specimen submission assistance.

4. **Pre-identify area(s) where an infected student would isolate or exposed non-immune students would quarantine if they cannot go home.**
   - Plan for well-being checks, food deliveries, and provision of other necessities.

Respond: Actions to Take if Someone at your College or University is Diagnosed with Measles

1. **Isolate and monitor infected students, faculty, or staff while they are infectious to reduce virus transmission.**
   - Infected students should be encouraged to return home, if possible.
     - The student should be transported in a way to limit exposure to others.
     - Public transportation, including bus, train, air, ride share services, should not be used while the student is infectious.
     - Ask the student to wear a face mask while in transit.
   - Provide accommodation for infected students who cannot return home
     - Infected students should be housed in a private room with a private bathroom in a residence away from others. If there are multiple infected students whose isolation periods coincide, they may be housed together if space is limited.
     - Ensure that basic human needs are met while the student is isolated, such as providing meals and other necessities.
     - Staff should perform regular check-ins to assess the student's well-being and needs.
     - Only staff with evidence of immunity should deliver food or interact directly with the isolated student. Regardless of immune status, these staff should wear gloves and a fitted N-95 respirator when entering the isolation room.
     - When isolation concludes, the room should remain vacant for at least 2 hours followed by thorough cleaning and disinfection.
   - If an infected student needs care somewhere other than on campus (hospital, medical office), the receiving facility should be notified in advance so appropriate infection control measures can be put into place.
   - Infected faculty or staff should be excluded from work until considered non-infectious (4 days after the onset of rash).

2. Identify and notify students, faculty, and staff who may have been exposed to an individual diagnosed with measles.

- Coordinate with your state or local health department for follow-up for those potentially exposed to measles. This may include:
  - Assessing the immune status of potentially exposed students, faculty, and staff.
  - Offering post-exposure prophylaxis (MMR vaccine or immunoglobulin) to non-immune persons, when indicated. Consider hosting an on-campus clinic, ideally within 72 hours of exposure.
- Provide education to all potentially exposed people, including signs and symptoms of measles and the need to seek medical care if they develop symptoms. Ill people should be cautioned to call their medical provider before seeking care and notify them of the potential exposure so measures can be put into place to limit others being exposed to measles virus.

3. Quarantine non-immune people who do not receive post-exposure prophylaxis.

- Quarantine should last from day 7 through day 21 after last exposure.
- Students who need to quarantine should be encouraged to return home, if possible.
- Provide accommodations to students who need to quarantine and cannot return home. Housing should be a private room with a private bathroom and staff should plan for well-being checks, food deliveries, and provision of other necessities.
- Faculty and staff who were exposed and are not immune should be excluded from work from day 7 though day 21 after exposure. If additional people on campus develop measles, exclusion should be extended until 21 days have passed since the most recent case's onset.

4. **Communicate important messages about measles prevention and control with the campus community and with parents.**

- Coordinate messaging with the state or local health department.
- Consider multiple methods of communication, such as text, social media, posters, and email.
- Utilize the college or university website to provide updates, so the campus and surrounding non-campus community is aware of the status of the measles response.

Resources

Measles | Department of Health | Commonwealth of Pennsylvania
About Measles | Measles (Rubeola) | CDC
Immunization Recommendations for College Students – ACHA