

# **Prevent and respond to measles**

# A resource for K-12 schools

Measles in schools can be a serious health threat to students and staff, and disruptive to learning. A single case of measles is a concern and needs to be taken seriously. Vaccination is the best protection against measles.

Measles is more than just a rash—it can cause serious health complications or even death. Historically about 1 in 5 people who get measles will be hospitalized. Measles is a highly contagious respiratory disease caused by the measles virus. It can lead to serious complications and is easily spread in school settings. The Utah Department of Health and Human Services (DHHS) provides the following guidance to help schools prevent measles transmission and manage potential cases of measles.

Typically, few measles cases occur in the U.S. every year when unvaccinated travelers get measles while they are in other countries. However, in 2025 the U.S. has seen an increase in measles spread, particularly in under-vaccinated communities. As of August 2025, a number of Utahns have been identified with measles. We expect this outbreak to continue.

## **Understanding measles**

## **Symptoms**

#### Early symptoms of measles

The first symptoms of measles start between 1 and 3 weeks after you are exposed and infected with the virus. Most people have symptoms at about 2 weeks. The first symptoms of measles may seem like a cold or allergies. Early symptoms include:

- High fever (typically 101°F (38.3°C) or higher), with:
  - Cough
  - Runny nose
  - Red, watery eyes

#### 2 to 5 days after symptoms start:

Measles <u>rash</u> usually begins as flat, red spots that appear on the face at the hairline.
 The spots then spread down to the neck, belly, arms, legs, and feet.



- Measles rash looks similar in most people, but it doesn't always look the same for everyone.
- The red spots may join together as they spread from your head to the rest of your body.
- The spots will often turn white (blanch) if you press on them with your finger for the first few days after you get them. They usually stop blanching (turning white) with pressure 3 or 4 days after they appear.
- Small raised bumps may appear on top of the red spots.
- The skin may flake or peel in areas with a heavy or severe rash.
- Your fever may get higher than 104°F or 40°C when you first get the measles rash.
- Many other things can cause a rash. It doesn't always mean you have measles if you have a rash.



## What are some complications of measles?

Measles is mild for most people. However, about 30% of people with measles get complications or have severe illness.

Common complications include ear infections and diarrhea. Severe complications can include hospitalization, pneumonia (lung infection), encephalitis (brain swelling), and even death. Measles can be more severe in young infants and in pregnant women, who may experience miscarriages, premature labor, and a condition in the baby called congenital measles syndrome.

## How measles spreads

You can get measles if you are not vaccinated and are around someone who has the virus or if you touch surfaces with the virus on them.

- The measles virus stays in the air and on surfaces for up to 2 hours after an infected person leaves.
- You can walk into a room where someone with measles has been and still get infected.



Droplets spray into the air when you cough, sneeze, speak, sing, or breathe.

- Measles spreads when droplets that have the measles virus in them spray into the air and other people breathe them in.
- It can also spread if people get the droplets on their hands when they touch something where droplets have landed and touch their face or mouth.

## How long is someone contagious with measles?

You're contagious from 4 days **before** you get a measles rash until 4 days **after the rash starts** (see calendar below). This means you can be contagious before your symptoms start, or while you have early symptoms that feel like a cold (such as a runny nose, red eyes, and a cough). This is one reason why measles can spread so easily in a school—people who are contagious with measles may come to school before they even know they have measles.

SUN	MON	TUE	WED	THU	FRI	SAT	Day the rash
1	2	3	4	5	6	7	first appeared
8	9	10	11	12	13	14	Day you can go
15	16	17	18	19	20	21	back to school
22	23	24	25	26	27	28	

= contagious period



## **Prevention strategies for schools**

## **Vaccination** is key

#### **Encourage MMR vaccination**

The measles, mumps, and rubella (MMR) vaccine is the most effective way to prevent measles. Two doses are about 97% effective at preventing measles.

Measles vaccines are available from:

- Doctor's offices
- Urgent care facilities (call to confirm)
- Local pharmacies (check with locations based on child's age)
- Local health departments

You may want to send out a letter to parents at the beginning of the school year. You can access a draft letter on page 1 of this document.

#### Maintain accurate and current immunization records

Schools must keep up-to-date and accurate vaccination records for all students and staff. Be aware of students who have medical, religious, or personal exemptions. Here is a <u>sample documentation template</u>.

- <u>Utah School Immunization Rule</u>: To attend kindergarten through 12th grade, students must provide written proof of receiving 2 doses of the MMR vaccine.
- **Exemptions:** For medical, religious, or personal exemptions, the legally responsible individual must complete the online <u>immunization education module</u> or attend an in-person consultation at a <u>local health department</u>. A copy of the exemption form must be submitted to the school.
- **Previous infection:** Immunity documentation should be provided for any student who claims previous measles infection. This includes serological/titer testing results or a lab-confirmed measles infection.
  - Note: Immunity to measles does not provide immunity to mumps and rubella, which are all covered by the MMR vaccine. Only unvaccinated students who have lab-confirmed immunity to measles, mumps, and rubella from infections in the past do not need documentation of MMR vaccine doses.



You can request your vaccine records through the <u>Docket app</u> which can be downloaded on both Android and Apple devices. You will be able to access vaccination records immediately within the app. You can also visit <a href="https://immunize.utah.gov/usiis-parents-individuals/">https://immunize.utah.gov/usiis-parents-individuals/</a> and receive an email of your vaccination record within 1–3 business days.

## Stay home when sick

Emphasize that students and staff should stay home when they are sick, especially with fever or rash. Provide training to school nurses and other school-based healthcare providers to help them recognize measles symptoms.

## **Environmental cleaning**

### **Regular disinfection**

Regularly clean and disinfect high-touch surfaces (e.g., countertops, tables, desks, chairs, doorknobs, telephones, faucet handles, equipment) with an EPA-registered disinfectant effective against viruses. You may also use a solution of 1 part bleach to 9 parts water. Make sure you allow the solution to sit on the surface for at least 1 minute before you wipe it off. The surface must remain wet for the entire minute to be properly disinfected.

#### **Airflow**

Open windows when possible and set HVAC systems to bring in fresh air to improve airflow. HEPA air purifiers can be considered for classrooms and offices.

#### Communication

Communicate to families your policies and procedures for suspected measles in your school. This may include information about the child being placed in a mask, isolated away from other children, and requiring immediate pick-up by caregivers and a medical or public health evaluation before they can return to school.

Communication may also include information that students or staff who do not have at least 1 dose of the MMR vaccine or evidence of immunity will be asked to stay home for up to 21 days or more if there is a measles exposure or outbreak at the school. You can send out <u>this guidance</u> to parents of students who have not received the MMR vaccine.



# Responding when someone is suspected or confirmed to have measles

### Immediate actions when someone is suspected to have measles

- 1. If a student or staff member presents with suspected measles symptoms (fever **and** rash), give them a well-fitting mask and immediately isolate them in a private room away from others while they wait for pick-up by a parent/guardian or transport to a healthcare facility. They may remove the mask once they enter the private space.
  - a. Keep the door to the room closed and open a window if possible.
    - i. If there is no separate room available, consider using an outdoor space, weather and safety permitting.
  - b. If the person suspected to have measles is a student, make sure any person who has to enter the room or watch over the student has documented immunity to measles, is not pregnant, and does not have any immunocompromising conditions.
- 2. Immediately notify your <u>local health department</u>.
- 3. Advise the individual or their parent/guardian to call their healthcare provider to discuss testing for measles. It is **extremely important** that they call first before they go to a clinic or hospital so the facility can prepare for isolation and prevent further exposure.
- 4. When the parent or guardian comes to pick the student up from school, escort the student to an exit as far away from the rest of the school population as possible, and especially as far away as possible from any high-risk students (such as hallways used by immunocompromised individuals). Try to use the exit closest to where the student was waiting to be picked up. This will help to avoid walking throughout the school and potentially exposing other students.
- 5. After the person leaves:
  - a. Close off the room and do not let anyone in for a minimum of 2 hours after the person has left.
  - b. After the 2 hour waiting time, perform routine disinfection protocols using an EPA-approved product.
    - Surfaces that may be contaminated with body fluids should be cleaned regularly with disinfectant. Generally, EPA-registered disinfectants suitable for hepatitis B viruses and HIV will be effective against the measles virus. (Visit the <u>EPA website</u> for more information.)



- ii. Commonly contaminated areas include, but are not limited, to:
  - 1. Countertops
  - 2. Tables
  - 3. Desks
  - 4. Cabinets
  - 5. Chairs
  - 6. Doorknobs
  - 7. Telephones
  - 8. Faucet handles
  - 9. Equipment
  - 10. Childcare workers should consider disinfecting any toys or small objects that may be contaminated with a child's saliva or other body fluids.

## **Exclusion policies for schools**

# R396-100-8. Exclusions of Students Who Are Under Exemption and Conditionally Enrolled Status

In an outbreak or after an exposure, it may be necessary to exclude students with immunization exemptions. <u>Administrative rule R396-100-8</u> (below) grants authority to public health to exclude students with vaccine exemptions in an affected school or when measles transmission is occurring in a population where it is likely that further spread of the disease may occur in a school.

#### Utah rule R396-100 states that:

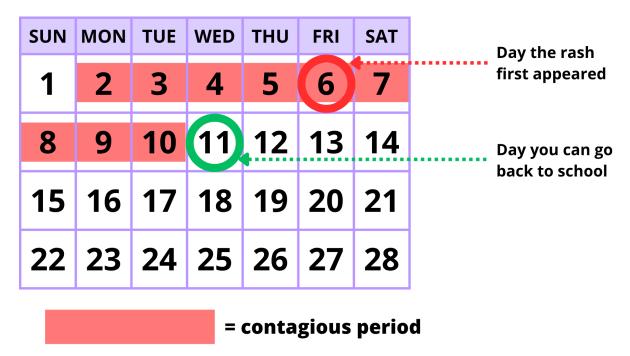
- (1) A local or state health department representative may exclude a student, as authorized by Section 53G-9-302, who has claimed an exemption to all vaccines or to one vaccine, who is not immune to the outbreak disease, or who is conditionally or extended conditionally enrolled from school attendance if there is good cause to believe that the student has a vaccine-preventable disease, or:
  - (a) has been exposed to a vaccine-preventable disease; or
  - (b) will be exposed to a vaccine-preventable disease as a result of school attendance.
- (2) An excluded student may not attend school until the local health officer is satisfied that a student is no longer at risk of contracting or transmitting a vaccine-preventable disease.



The <u>local health department</u> will evaluate student exclusions on a case-by-case basis. The <u>local health department</u> may consult with Utah DHHS as needed.

#### Infected individuals

A student or staff member diagnosed with measles must isolate at home and stay away from all public places (including school) until it has been 4 days since the rash first appeared. (The day the rash started counts as day 0, the day after the rash appeared is day 1, etc. The person should isolate through day 4. See graphic below.)



### Undervaccinated students or staff who are exposed to measles

Students and staff who are exposed to someone who is **suspected or confirmed** to have measles and do not have at least 1 dose of the MMR vaccine or lab evidence of immunity **may be asked to be picked up early and stay home from school or work for up to 21 days or more**. This may include students who did not have direct contact with the person who developed measles, since measles is spread through the air. This also includes those with medical or other exemptions to vaccination. This is to protect them from additional exposures if more people come to school with measles.

Work with your local health department to determine who has been exposed to measles. The health department and school will work together to reach out to the exposed people or their parents or guardians to let them know the next steps to take.



# Steps that schools may take after you determine an undervaccinated student or staff member has been exposed to measles

- Ask the child's parent or guardian to pick them up from school as soon as possible.
   If the exposed person is a staff member, send them home from school as soon as possible. Note: If the exposed student has symptoms of measles while at school, follow the instructions in the <a href="mailto:lmmediate actions when someone is suspected to have measles">lmmediate actions when someone is suspected to have measles</a> section of this document.
  - Move the student to a space separate from other students (ideally a private space, away from others) where they can wait for their parent or guardian to pick them up.
    - Keep the door to the room closed and open a window if possible.
      - If there is no separate room available, consider using an outdoor space, weather and safety permitting.
      - If multiple undervaccinated students have been exposed and need to be sent home, they should wait in separate isolation spaces for their parents or guardians to pick them up.
        - If there are no more rooms available, consider an outdoor space or an open indoor space such as a cafeteria. Sit the students with as much space between them as possible. If they are waiting in an open indoor space together they should all wear masks.
    - Monitor and check on the student until they are able to be picked up. Make sure any person who has to enter the room or watch over the student has documented immunity to measles, is not pregnant, and does not have any immunocompromising conditions.
- Inform the child's parent or guardian they should watch for fever AND rash until it
  has been 21 days since the day they were last exposed. Exposed staff members
  should watch themselves for these symptoms during this time.
  - If those symptoms show up, recommend the child's parent or the staff member call their physician or a healthcare provider to check out the rash and talk about a possible test for measles. The child or staff should stay home from school until it has been 4 days since the rash appeared.



SUN	MON	TUE	WED	THU	FRI	SAT	Last day someone measles was in the
1	2	3	4	5	6	7	building or classro while they were
8	9	10	11	12	13	14	contagious
15	16	17	18	19	20	21	Day you can go ba
22	23	24	25	26	27	28	to school if you ne had symptoms.

# = stay away from others and watch for symptoms of measles

• Students and staff who receive immunoglobulin after exposure may need to stay home for up to 28 days. Work with the local health department to determine when these students or staff can return to school.

## Post-exposure prophylaxis

People exposed to measles who do not have evidence of immunity may be eligible for post-exposure prophylaxis with MMR vaccine (within 72 hours of exposure) or immunoglobulin (within 6 days of exposure). For more information speak with your healthcare provider or <u>local health department</u>.

#### How can a student who has been excluded be readmitted to school?

Students who have not had at least 1 dose of the MMR vaccine or who do not have lab-confirmed immunity to measles may be able to receive post-exposure vaccination. Unvaccinated students who do not have lab-confirmed immunity to measles will be able to return to school if they receive post-exposure vaccination within 72 hours of their exposure. If they do not receive post-exposure vaccination within 72 hours of exposure, they may be asked to stay home for up to 21 days or more, but should still consider vaccination to prevent being excluded if future outbreaks happen. See table below for more details. Note that the table only applies to students who do not have lab-confirmed immunity to measles from an infection in the past.



Number of doses of the MMR	What happens if there is a measles exposure or outbreak at the school		
Had <b>2 doses</b> of MMR before the exposure or outbreak at the school	Can go to school or childcare as normal.		
Had <b>1 dose</b> of MMR before the exposure or outbreak at the school	Can go to school as normal, but should get the 2nd dose of MMR as long as it has been at least 28 days since the first dose.		
Had <b>0 doses</b> of MMR before the exposure or outbreak at the school	May not be able to return to school or childcare until it has been 21 days since the last day someone with measles was in the classroom or school building while they were contagious,		
	OR  ✓ Can return to school or childcare if they get a dose of MMR within 72 hours of exposure.		

Work with your local health department to determine who should be excluded and when they can come back to school.

## **Communication and monitoring**

### Parent/guardian notification

Prepare and distribute exposure letters to inform parents/guardians and staff if a measles case occurs in the school. You can access a draft letter on page 2 of <a href="this document">this document</a>.



#### Health department monitoring of exposed individuals

The health department will advise students and staff identified as having been exposed to someone infected with measles, whether in the school building or elsewhere, to monitor for signs and symptoms of measles for 21–28 days.

### **Staffing considerations**

Schools should have plans for potential staff absences due to illness or exclusion.

## Collaboration with public health

- Work closely with the <u>local health department</u> for guidance on testing, contact tracing, isolation periods, and exclusion criteria.
- Make sure anyone who is suspected or confirmed to have measles is immediately reported to your <u>local health department</u>.
- Arrange with your <u>local health department</u> to set up immunization clinics at your school to vaccinate students.

## Best practices for the school year

As we prepare for the new school year, we want to remind you how important it is to protect students, staff, and our broader community from serious vaccine-preventable diseases like measles. With confirmed cases of measles already reported in our state, it is critical that schools remain vigilant.

We strongly encourage you to identify and notify families of students who currently have exemptions to the MMR vaccine. Share information about local immunization clinics, health department services, and other resources available to help these families access the MMR vaccine should they choose to vaccinate their children.

We also urge schools to review records for any students who were conditionally or extended conditionally enrolled in the last school year. Reach out to those families to make sure that missing MMR doses have been completed before the start of the new school year. Additionally, remind school staff to check their own vaccination status and update any missing immunizations as needed. Proactive outreach, accurate record keeping, and promoting immunizations are key strategies to reduce the risk of outbreaks and keep our schools healthy and safe.



Utah schools can significantly reduce the risk of measles transmission and protect the health of their students and staff by adhering to these guidelines.

For more information visit <a href="https://epi.utah.gov/measles/">https://epi.utah.gov/measles/</a> or contact your <a href="local health-department">local health-department</a>.