

Measles

What is measles?

Measles, also known as red measles, is a severe illness caused by the measles virus.

Measles can cause encephalitis, an inflammation of the brain, which can lead to seizures, deafness, or brain damage. One person in every 3,000 with measles may die from complications. Complications and death are most common in infants less than 12 months of age and in adults. Complications of measles can include:

- Ear infections - 1 in 10 cases
- Pneumonia - 1 in 10 cases
- Encephalitis - 1 in every 1,000 cases
- Diarrhea - 8 in 100 cases
- Hospital stay - 1 to 2 in 10 cases

What are the symptoms of measles?

Symptoms can start as soon as 7 days after the person is infected and include fever, cough, runny nose, and red and inflamed eyes that are often sensitive to light. These are followed by a rash, which starts first on the face and neck, and spreads to the chest, arms and legs, and lasts at least 3 days. There may be small white spots inside your mouth.

How is measles spread?

Measles is very contagious and spreads easily through the air by aerosol or droplet spread, direct or indirect contact with nasal or throat secretions. The measles virus can survive in small droplets in the air for several hours. You can become infected when you breathe in these droplets or touch objects contaminated with the virus.

When is a person infectious?

A person with measles (who is otherwise healthy) can spread the virus to others 5 days before to 4 days after their rash first appears. An immunocompromised person with measles can spread the virus to others from 5 days before rash first appears and through the duration of the illness.

How do I know if I am immune?

An employee is considered immune if he/she has:

- A birth date before January 1, 1957
- documented evidence of vaccination with 2 valid doses of live measles-containing vaccine after their 1st birthday and given at least one month apart.

History of disease is not accepted as immunity. Vaccination is the preferred method of gaining immunity. However, if an employee has already received serology then this will be accepted as their immunity status.

If the employee has not provided Workplace Health with the above information, he/she will be considered non-immune.

When is an employee exposed?

A non-immune employee is considered exposed if they did not use personal protective measures **and** spent any length of time in a room or enclosed space while the measles case was present **or** for up to two hours after the case has left the room/space.

What happens if an employee is exposed?

If an employee is exposed to and is immune to measles, they do not need to alter any activities and can continue to work.

If you have been exposed and have had 1 dose of a measles vaccine:

1. have your blood drawn for STAT measles IgG testing
2. receive your 2nd dose of MMR within 72 hours of exposure
3. remain off work between day 5 (post first exposure) and day 21 (post last exposure) inclusive until testing results are in
 - If you have protective levels of IgG, you may return to work
 - If you have no protection, you must remain off until day 21 post last exposure
 - If you develop measles, you must remain off until 4 days after the rash onset

If you have been exposed and have had zero doses of a measles vaccine:

1. have your blood drawn for STAT measles IgG testing
2. receive your 1st dose of MMR within 72 hours of exposure
3. remain off work between day 5 (post first exposure) and day 21 (post last exposure) inclusive until testing results are in
 - If you have protective levels of IgG, you may return to work
 - If you have no protection, you must remain off until day 21 post last exposure
 - If you develop measles, you must remain off until 4 days after the rash onset
 - Receive your 2nd dose of MMR 28 days after your 1st dose

If you have been exposed and the MMR vaccine cannot be given within 72 hours or because of a medical contraindication to MMR:

1. have your blood drawn for STAT measles IgG testing
2. receive measles immune globulin within 6 days of being exposed (can protect against measles infections or make the illness less severe)
3. remain off work between day 5 (post first exposure) and day 21 (post last exposure) inclusive until testing results are in
 - If you have protective levels of IgG, you may return to work
 - If you have no protection, you must remain off until day 21 post last exposure
 - If you develop measles, you must remain off until 4 days after the rash onset
 - Receive 2 doses of MMR vaccine 28 days apart if/when no longer contraindicated.

Available data suggests that the measles vaccine, if given within 72 hours of exposure, will prevent or modify disease, although not in all circumstances. The vaccine will also induce protection against subsequent measles infection.

What happens if an employee has measles?

Possibly infected employees must stay away from work and see their doctor as soon as possible for confirmation of the disease and treatment. Contact your physician beforehand so they can take precautions for your arrival.

Confirmed infected, but otherwise healthy employees must stay away from work until 4 days after rash onset. Confirmed infected immunocompromised employees must stay away from work for the duration of the illness.

Manager/Supervisor Responsibilities:

Suspected Outbreak or staff exposure from patient: consult with Infection Control. Infection Control will confirm diagnosis, notify and collaborate with the Workplace Health Call Centre Occupational Health Nurse (WHCC OHN). No additional action required until confirmation of disease.

Confirmed Outbreak/Staff exposure: Infection Control will inform the WHCC OHN of the confirmed disease exposure. The WHCC OHN will contact the manager and send out an exposure notification memo to the manager. Please advise all staff members that meet the exposure criteria to contact the WHCC OHN at 1-866-922-9464.

Advise infected employees to contact the WHCC OHN.

Employee Responsibilities:

Infected or exposed employee: please contact the WHCC OHN at 1-866-922-9464 and review the information above.

Additional Information/References:

- HealthLinkBC File: [Measles](#). October 2016. Retrieved on August 2, 2017.
- BCCDC Communicable Disease Control Manual. [Measles](#). June 2014. Retrieved on August 2, 2017.
- Canada Communicable Disease Report. [Prevention & Control of Occupational Infections in Health Care](#). March 2002. Retrieved on August 2, 2017.
- Provincial Infection Control Network of BC (PicNet). [Interim Guidelines for Baseline Assessment and Management of Health Care Workers \(HCW\) who are Cases or Contacts of Measles \(Rubeola\)](#). June 21, 2010. Retrieved on August 2, 2017.