

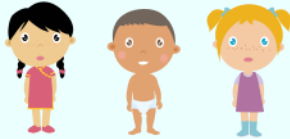
Source: [www.cdc.gov](http://www.cdc.gov)

# Measles

IT ISN'T  
JUST A  
LITTLE  
RASH



Measles can be dangerous,  
especially for babies and  
young children.



## MEASLES SYMPTOMS TYPICALLY INCLUDE

- High fever (may spike to more than 40°C)
- Cough
- Runny nose
- Red, watery eyes
- Rash breaks out 3-5 days after symptoms begin



## RESURGENCE OF MEASLES

On February 6th, 2024, the Public Health Agency of Canada (PHAC) issued a public health alert on the global increase in measles cases worldwide. This came one week after an epidemiological alert from the Pan American Health Organization/World Health Organization (PAHO/WHO) for measles in the region of Americas. Measles is a highly contagious **airborne**, but vaccine preventable, viral infection with a greater than **90%** secondary attack rate among people who are susceptible.

People who do not have immunity against measles, either because they are unvaccinated or did not develop immunity from vaccination or prior infection, can become infected with this virus. Individuals that are primarily at a higher risk are unvaccinated young children, pregnant persons, and anyone who is immunocompromised. As of February 23, 2024, six measles cases have been reported in Canada this year, two of which are in the province of Ontario.

Measles spreads through the air when an infected person breathes, talks, coughs or sneezes. It can also spread through **direct contact** with contaminated surfaces or secretions from the nose or throat of an infected person, and symptoms can appear between 7 to 21 days after infection. Measles results in a diffused maculopapular rash throughout the body that usually begins as flat red spots on the face at the hairline and spreads downward all the way to the feet. Other symptoms include high fever, cough, runny nose and red, watery eyes (conjunctivitis). Small, white spots called *Koplik* spots may also appear inside the mouth and throat 2 to 3 days after symptoms begin. The red rash on the body usually last for four to seven days. While rare, severe complications such as respiratory failure, encephalitis and even death can occur in vulnerable individuals.

Measles was declared eliminated by Canada in 1998 and eradicated in the United States in 2000 through widespread vaccination programs. However, the highly transmissible pathogen has made a resurgence over the past few years, especially in the USA and Europe, because of a drop in vaccine coverage, in large part due to vaccine skepticism. In addition, over 61 million doses of measles-containing vaccine were delayed or missed from 2020 to 2022 because of the COVID-19 pandemic according to the US CDC, increasing the risk of bigger outbreaks around the world.

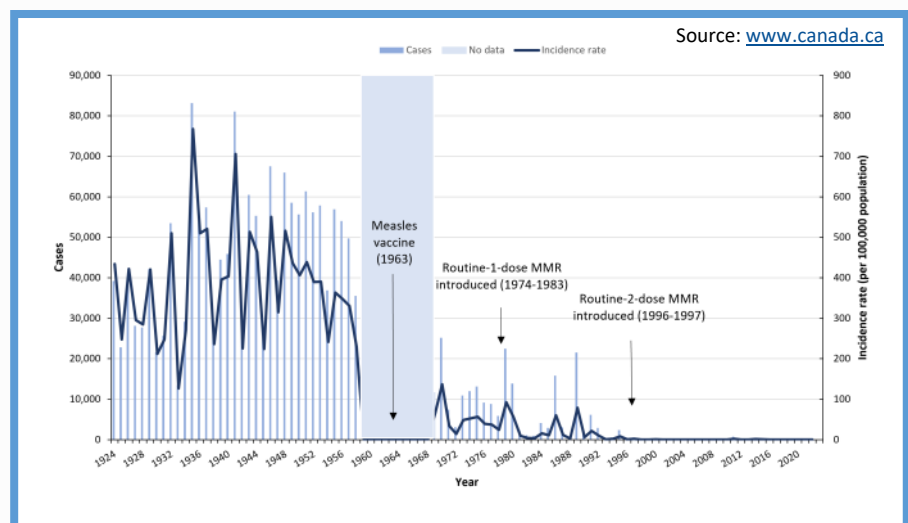
Measles is no longer endemic in Canada and outbreaks usually start due to international import when susceptible individuals travel and return from countries where measles is prevalent and circulating. The two cases identified in Ontario this month are also linked to travel. Such cases could expose individuals in the community who don't have immunity against measles, resulting in outbreaks. People who have recovered from measles develop permanent immunity to the disease.

However, the safest way to develop immunity against measles is through vaccination and is typically administered in two doses. The first dose is a 3-in-1 measles-mumps-rubella vaccine called the MMR vaccine that should be given at **12-15 months** of age according to the Ontario's routine immunization schedule. The second dose is a 4-in-1 MMRV vaccine, which also includes vaccine for chickenpox (varicella), and should be given between **4-6 years** of age. Health care workers 18 years of age and older who have previously received just one dose of MMR should receive a second dose. Those who have received the full series of the MMR immunization are *highly unlikely* to contract the disease.

Measles is a **disease of public health significance** and residents/clients who have or may have measles should be placed on Airborne Precautions and reported immediately to the local public health unit.

If a single room with negative air flow is not available, a resident should be placed in a private room with the door closed and allow ~2 hours of air exchange before another

resident or unprotected staff enter the room. Health care providers should keep a lookout for any symptoms of measles in patients/residents/clients and encourage vaccination to all eligible individuals, especially those planning to travel, to limit potential outbreaks and keep everyone safe.



Incidence of measles in Canada (per 100,000 population) - 1924 to 2023

## CPAP DEVICE IN CONGREGATE LIVING SETTINGS



A CPAP or Continuous Positive Airway Pressure is a medical device that is used as a treatment for sleep apnea, a condition where a person's airways becomes partially or completely blocked during sleep. It delivers a continuous stream of air through a mask to keep the airway open and ensure uninterrupted breathing. According to the PIDAC's best practices guide on [Routine](#)

[Practices and Additional Precautions](#), CPAP and BiPAP (bilevel positive airway pressure) non-invasive ventilation systems **are considered** as aerosol-generating medical procedures (AGMPs) that may present a risk for infection transmission.

Policies and procedures on the usage of CPAP machines by patients/residents in a healthcare setting may vary between types of healthcare settings and facilities based on multiple factors. The COVID-19 pandemic identified knowledge gaps in our understanding of the level of risk associated with different AGMPs and existing guidelines may change as new evidence emerges. However, some of the current recommendations on AGMPs that should be implemented in congregate living settings to reduce potential risk of transmission of respiratory pathogens are:

- A private room with the door closed is preferred for a resident who requires an AGMP. Entry into a room of a resident undergoing CPAP should be minimized.
- If private room is not available for a resident with CPAP, create physical barriers in the shared room like drawing privacy curtains and/or closing doors when AGMP is occurring. Also, remove any shared equipment, supplies, or linens from the immediate vicinity prior to AGMP.
- All staff should be vigilant with their **point-of-care risk assessment** (PCRA) for selection of appropriate PPE and environmental controls when caring for a resident with CPAP, and the roommate if the resident is in a shared room.
- The Manufacturer's Instructions for Use (MIFU) for the CPAP equipment should be used for cleaning and disinfection and for any other IPAC recommendations.

Sources: [www.publichealthontario.ca](http://www.publichealthontario.ca)<sup>1</sup> | [www.publichealthontario.ca](http://www.publichealthontario.ca) | [www.canada.ca](http://www.canada.ca) | [ipac.vch.ca](http://ipac.vch.ca)



### THOUGHTS ON THIS MONTH'S NEWSLETTER?

