

Measles:

What you need to know

What is measles?

Measles is a highly contagious viral infection caused by the measles virus. In fact, measles is one of the most contagious diseases in the world. Due to the success of measles immunization programs, cases and deaths due to measles have decreased internationally – and, in Canada, by **99%**. However, internationally, multiple deaths due to measles still occur each year. It is estimated that 128,000 people died due to measles in 2021, and most of these deaths were among children 5 years of age and younger.

While measles has been considered eliminated in Canada since 1998 – meaning measles no longer actively spreads throughout the country itself – cases and outbreaks of measles do occur in Canada when the virus is brought into the country through international travel.

What are the symptoms?

Symptoms of measles commonly begin 10 to 14 days after someone has been exposed to the virus. A **high fever** is commonly the first symptom to appear. The fever is often accompanied by other symptoms, which can include:

- a runny/stuffy nose,
- inflamed eyes,
- a cough, and
- small white bumps that form on the inside of the cheeks.

Usually two to three days after these symptoms begin, a **rash** appears – typically on the face. The rash then spreads to the upper body (chest and stomach area) and then to the arms and legs. The rash is typically accompanied by a high fever. The full body rash often lasts **five to six days**.



Measles is often thought of as ‘just another childhood disease’, but in fact about **1 in 10** people will develop a serious measles infection and will experience complications such as **pneumonia** and **ear infections**. Less commonly, severe infection can also result in **brain inflammation** that can lead to permanent brain damage. In rare cases, it can also lead to a devastating disease called **subacute sclerosing panencephalitis (SSPE)**.

Subacute sclerosing panencephalitis (SSPE): A rare and severe complication of measles

SSPE is a **rare and fatal disease** that leads to the degeneration of the central nervous system (your brain and spinal cord). The effects of this disease commonly begin appearing **seven to ten years** after an initial measles infection, and the disease results in intellectual decline (memory loss), behaviour changes, the gradual inability to control body movement, and seizures.

Who is at risk?

While **anyone** can catch measles, **those most at risk for severe infection** include people who have a weakened immune system, people who have a chronic illness, people who are malnourished or poorly nourished, and infants under one year of age.

Pregnant people are also at higher risk for severe infection. A measles infection during pregnancy can lead to miscarriages, giving birth prematurely, and your baby having a low birth weight.

How is it spread?

The measles virus enters the body through the mouth or nose. Measles is spread:

1. through the air (i.e., when someone who has measles coughs or sneezes in the same room as you and you inhale the infected droplets in the air)
2. through close contact with others (e.g., coughing or sneezing next to someone)
3. through coming into direct contact with an infected person's mucus or spit and then getting these fluids in your nose or mouth

It is important to remember that measles is **extremely contagious**. To put this into perspective, if one person has measles, they will spread it and infect **90%** of the people around them if those people are unvaccinated or do not have prior immunity to measles (i.e., if they have not had measles before).



Who should be immunized?

- children and adolescents according to the childhood immunization schedule in their province/territory
- adults born in or after 1970 who **have not been** immunized against measles or who **do not have** laboratory-confirmed immunity to measles
 - It is assumed that most adults born before 1970 have already had measles, and therefore most likely already have immunity to the disease
- healthcare workers, military personnel, and people planning to travel outside of Canada who **have not been** immunized against measles or who **do not have** laboratory-confirmed immunity to measles, regardless of birth year

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Publicly funded immunization schedules for measles may vary between provinces and territories.

While the measles vaccine is highly effective, it is still possible for some vaccinated people to get measles. However, the infection is usually milder in people who received the vaccine, and they are less likely to spread the disease to others. The efficacy of 2 doses of measles vaccine against measles infection is nearly 100%.

Are you protected against measles?

Measles vaccines are safe and the most effective way to protect against measles infection.

In Canada, the measles vaccine is combined with other vaccines – mainly the mumps, rubella, and varicella (chickenpox) vaccines. Together, they make the measles, mumps, and rubella (MMR) vaccine or the measles, mumps, rubella, and varicella (MMRV) vaccine. With the MMR or MMRV vaccine, you get protection against multiple diseases in one shot.



Talk to your doctor, nurse, pharmacist, or local public health office about getting yourself and your child immunized against measles.

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