

# Common questions about measles

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Find answers to common questions our HealthLink BC [8-1-1](#) health service navigators and registered nurses are asked about measles. Learn how it spreads, how long after exposure symptoms take to appear and what symptoms to look for. Find out what you can do to prevent measles, from vaccination to avoiding sharing food and drinks. You can also find more resources about [measles in our health feature on our website](#).

## General information on measles

### 1. What causes measles?

Measles is a highly contagious disease caused by the measles virus.

### 2. What are the symptoms of measles?

- Fever
- Cough
- Runny nose
- Red eyes
- Small red spots in the mouth (spots have white or bluish-white centers)
- Red blotchy rash that starts on the face and spreads to the limbs and lasts at least three days. Rash begins on 3rd to 7th day of illness and lasts 4 to 7 days

### 3. How is measles spread?

The virus spreads through the air and can survive in the air for several hours. You can help prevent its spread by washing hands, sneezing or coughing into your arm. Avoid sharing food, drinks, kissing or sharing items such as cigarettes.

### 4. How long does it take to show signs of measles after being exposed?

Symptoms of measles can start anywhere from 7 to 21 days after a person is infected with the virus. People are infectious for 1 to 2 days before the onset of their symptoms (usually about 4 days before rash onset) and up to 4 days after the onset of the rash.

### 5. What is the treatment for measles?

Preventing measles with vaccinations is better than treatment. If you are infected with the virus, see your health care provider. When you return home take plenty of fluids (including water, juice and soup) and rest.

### 6. How do you prevent measles?

Immunization (vaccination) can prevent measles. [Immune globulin](#) can be used to prevent measles for those who are unable to be vaccinated for any reason). Also, as the virus spreads through the

air and can survive in the air for several hours, wash hands often and sneeze or cough into your arm. Avoid sharing food, drinks, kissing or sharing items such as cigarettes.

### **7. What are some complications of measles?**

- One out of 10 cases will have ear infections or pneumonia
- Measles encephalitis (inflammation of the brain) occurs in about 1 of every 1,000 cases and many result in permanent brain damage
- Death from respiratory and neurologic complications occurs in one out of 3,000 cases

### **8. What should I do if I think I have measles?**

If you have a fever and rash and think you may have measles, especially if you have been in contact with someone with measles or traveled to an area with a measles outbreak, see a health care provider.

It is best to call ahead so that you can be seen quickly and without infecting other people. Measles can spread easily in places like waiting rooms and emergency rooms. The doctor or triage nurse can book you an appointment when the waiting room in the clinic is empty. They can take you to a closed area for an examination when you arrive.

Bring your immunization record with you.

A physical examination, blood test, and throat swab or urine sample will be collected to make the diagnosis of measles.

### **9. Is being in a community with measles outbreak the same as having an exposure to measles?**

No, being in a community with a measles outbreak does not necessarily mean you have been exposed to measles. Health authorities will determine specific locations where individuals have potentially been exposed. They will communicate that to all individuals who may be affected.

### **10. Can I be a measles carrier?**

A carrier refers to a person who is showing no symptoms but is still infectious. People are infectious for 1 to 2 days before the onset of measles symptoms (usually about 4 days before rash onset) and up to 4 days after the onset of the rash. As the virus spreads through the air and can survive in the air for several hours, take precautions if you may have been exposed to the measles virus. Wash hands often and sneeze or cough into your arm. Avoid sharing food, drinks, kissing or sharing items such as cigarettes.

## **Vaccination recommendations**

### **1. Who needs to get vaccinated?**

- Children aged 12 months will receive the first dose of the measles vaccine and the second dose at age 4 to 6 years. There is no recommendation to receive the second dose earlier (for example, before 4 years of age)
- Children 4 to 12 years of age who also need protection against chickenpox (varicella) can get their second dose as the combined Measles, Mumps, Rubella and Varicella (MMRV) vaccine
- Children and teens who have not been vaccinated at all. These children should receive two doses of the Measles, Mumps, Rubella (MMR) vaccine

- Adults born on or after January 1, 1970 (1957 for health care workers) who do not have two documented doses of measles-containing vaccine or proof of immunity are recommended to have two doses of the MMR vaccine. This is especially important for travelers
- Adults born before January 1, 1970 (1957 for health care workers) are generally assumed to have immunity to measles from natural infection. For this reason, the MMR vaccine is not recommended for these individuals. Those who self-identify that they do not have a history of measles disease or vaccine may be considered susceptible. These individuals should be offered 1 dose of the MMR vaccine
- Health care workers born in 1957 or later are recommended to have two documented doses of measles-containing vaccine. Health care workers without a record of immunization or proof of immunity to the disease will also need 2 doses of MMR vaccine. Those born before 1957 are considered immune to measles

## **2. Who are considered immune?**

- Birth date before January 1, 1970 for most adults other than health care workers
- Birth date before 1957 for health care workers
- Documented evidence of vaccination with 2 valid doses of live measles-containing vaccine after their 1st birthday and given at least one month apart
- Laboratory evidence of immunity
- Laboratory evidence of prior measles infection

## **3. Who should not receive the MMR vaccine?**

Speak with your health care provider if you or your child:

- Has had a life-threatening reaction to a previous dose of measles, mumps or rubella vaccine, or any part of the vaccine including gelatin or neomycin
- Has an immune system weakened by disease or medical treatment
- Has had a drop in platelets, the blood cells that help prevent bleeding, after getting a previous dose of MMR vaccine when another cause was not identified
- Has had a blood transfusion or received other blood products within the past 12 months
- Are pregnant or planning to become pregnant. Women should avoid becoming pregnant for 1 month after getting the MMR vaccine

## **4. When is the measles vaccine given as part of child routine vaccination?**

- The first dose of the vaccination is given at 12 months, with the second dose at age 4 to 6 years
- Older children and teens who have not been vaccinated should also receive two doses of the MMR vaccine
- Vaccinating an infant between 6 and 11 months is sometimes recommended if travelling to an area where there is measles. You can speak with your local health unit for more information on this

- Always keep a record of the vaccines your child has received so you can provide the information when needed
- For information on vaccine schedules, please visit the [B.C. immunization schedules](#) page

**5. If I have been vaccinated before or had the measles, am I immune from getting it again? Do I have lifelong protection?**

- People who recover from measles have permanent immunity to the disease
- Anyone who has any of the following is considered immune:
  - Birth date before January 1, 1970 for most adults except health care workers
  - Birth date before 1957 for health care workers
  - Documented evidence of vaccination with 2 valid doses of live measles-containing vaccine after their 1st birthday and given at least one month apart
  - Laboratory evidence of immunity
  - Laboratory evidence of prior measles infection

**6. I was born in a foreign country. Do I need to get vaccinated for measles?**

If you've just moved to Canada, it's important to make sure you have received all the vaccines recommended for children and adults in B.C. These vaccines might be different from those recommended in your home country.

If you are missing any recommended vaccines, you can receive these missing routine vaccines for free.

**Pregnant women and children**

**1. I am pregnant. Can I get a measles vaccination?**

MMR is a live vaccine, so it is not recommended that pregnant women be vaccinated for measles until after they give birth. Everyone within the same household should be up to date on vaccinations to protect you and your baby.

**2. Can I get an MMR vaccine while breastfeeding? Is it safe for the child?**

If you are breastfeeding or chest feeding, there are no reasons why you should not get the MMR vaccine. It is safe for you and the baby. In B.C., for adults born after 1970, 2 doses of the MMR vaccine are recommended for measles protection. This vaccine is available from local health units, and some pharmacies and doctors' offices. Use the [health unit finder](#) on the ImmunizeBC website.

**3. Can my 3 month old be vaccinated?**

The MMR vaccine is not recommended for infants under 12 months of age. Infants who are less than 12 months of age may not respond to the measles component of the vaccine due to the presence of antibodies received from their mother during pregnancy. MMR vaccine is only recommended for infants 6 to 11 months of age if traveling overseas to areas with ongoing measles outbreaks. Such infants would still need 2 doses of MMR vaccine after 12 months of age. To receive vaccines related to travel, contact a [travel health clinic](#).

**4. I live in a community where there is currently a measles outbreak and my child has only had their first dose of vaccine. Should they have their second dose earlier than the recommended age?**

MMR is routinely given as part of the B.C. childhood immunization schedule at 12 months of age and at school entry at 4 to 6 years of age. The second dose of MMR vaccine is given at 4 to 6 years of age. There is no recommendation to receive the second dose earlier (for example, before 4 years of age).

**5. I live in a community where there is currently a measles outbreak. My baby is 7 months old; can I get the measles vaccine early for my baby?**

MMR vaccine is not recommended for infants under 12 months of age. Infants under 12 months of age may not respond to the measles component of the vaccine due to the presence of antibodies received from their mother during pregnancy. MMR vaccine is only recommended for infants 6 to 11 months of age if traveling overseas to areas with ongoing measles outbreaks. These infants would still need 2 doses of MMR vaccine after 12 months of age. To receive vaccines related to travel, contact a [travel health clinic](#).

**6. My baby is older than 6 months and has been exposed to measles. Can my baby have the MMR vaccine?**

If a healthy infant who is 6 to 11 months of age is exposed to measles, they may be protected from getting measles if they get the MMR vaccine within 72 hours after the exposure. Infants who receive a dose of MMR vaccine before 12 months of age will need another 2 doses after the child is 12 months of age. This dose must be followed by another dose at 4 to 6 years of age to ensure long lasting protection.

**7. Can I receive the second dose earlier than 4 years old?**

In B.C., the second dose of MMR vaccine is given at 4 to 6 years of age. There is no routine recommendation to receive the second dose earlier (before 4 years of age). If your child is younger than 4 years of age and traveling overseas to an area with high rates of measles, an early second dose is recommended before travel. This dose can be given as early as 4 weeks after the first dose. To receive vaccines related to travel, contact a [travel health clinic](#).

**8. I am travelling with my 11 month old child to Vancouver; can we have her vaccinated for MMR?**

MMR vaccine is not recommended for infants under 12 months of age. Infants who are less than 12 months of age may not respond to the measles component of the vaccine due to the presence of antibodies received from their mother during pregnancy. MMR vaccine is only recommended for infants 6 to 11 months of age if traveling overseas to areas with ongoing measles outbreaks. Such infants would still need 2 doses of MMR vaccine after 12 months of age.

## **Vaccine safety**

**1. Is the vaccine safe?**

Yes, vaccines used in Canada are safe and effective. All vaccines are thoroughly tested and must be shown to be safe and effective before they are used on us. [ImmunizeBC](#) has some great information that you can review to assure you are comfortable with the safety of vaccination.

## **2. I am allergic to egg. Is it ok to get the vaccine?**

The MMR vaccine is considered safe, even for people who have severe egg allergies.

## **3. If the measles vaccine is a live vaccine, can I be contagious to my unimmunized baby?**

The vaccine contains weakened forms of the measles, mumps and rubella viruses that do not cause disease. Even if someone develops a rash following receipt of the MMR vaccine, they are not contagious.

## **4. Can my 1 year old get measles from MMR vaccine? They are covered in a huge rash and had a shot 10 days ago.**

The MMR vaccine cannot cause measles disease in people with healthy immune systems. A rash that looks like measles can be a side effect of the MMR vaccine and occurs about 7 to 12 days after getting the vaccine. The vaccine rash is non-infectious and will resolve on its own.

## **Other questions on measles and measles vaccination**

### **1. Where can I get the measles vaccine?**

[Public health units](#) or [community health centers](#), nursing stations, some doctor's offices, [travel health clinics](#) and [pharmacies](#) (for people 4 years of age and older). Given the current measles situation, try to phone ahead to assure that they have vaccine in stock and to find out if you need an appointment.

### **2. Is the measles vaccine free?**

Yes, the vaccine is free as part of the routine immunization for children and for those born after 1970 (1957 for health care workers) who do not have two documented doses of measles-containing vaccine or proof of immunity. The MMR vaccine is provided free of charge to older children and adults who have not been immunized or do not have evidence of immunity to measles, mumps and rubella.

### **3. What is the difference between the vaccine and immunoglobulin?**

[Immune globulin](#) is a blood product containing measles antibodies. It may be recommended for some individuals exposed to a case of measles. Generally, immune globulin is only given to those who are at high risk for complications to measles but who cannot be immunized, including infants, pregnant women and immunocompromised individuals. It must be given within 6 days of the exposure to measles.

### **4. Once vaccinated with the MMR vaccine, how long does it take for the vaccine to be effective?**

It takes about two weeks after the MMR vaccine for antibodies to develop in the body. These antibodies protect against these viruses.

### **5. What is the efficacy and effectiveness of a single dose of the measles vaccine?**

The efficacy of a single dose of measles-containing vaccine given at 12 or 15 months of age is estimated to be 85% to 95%. With a second dose, efficacy in children approaches 100%. However, measles outbreaks have occurred in populations with high immunization coverage rates. Because

measles is highly contagious, at least 95% of the population needs to be immunized to develop herd immunity.

**6. Is there a record of the shots that I took? I cannot recall if I have been vaccinated for measles.**

You will need to work with the physician's office or clinics where you were immunized to get a record of your vaccinations. You can find contact information for public health units and travel health clinics where most people in British Columbia receive their immunizations in our [HealthLinkBC Directory](#). You can also find contact information for physicians in the College of Physicians and Surgeons of B.C. Please also read the [Immunization records](#) web page on ImmunizeBC.

**Useful links**

**HealthLinkBC**

- [HealthLinkBC Health Feature – Understanding measles](#)
- [HealthLinkBC File #14b – Measles](#)
- [HealthLinkBC File #14a – Measles, Mumps, Rubella \(MMR\) vaccine](#)
- [HealthLinkBC File #14e – Measles, Mumps, Rubella and Varicella \(MMRV\) vaccine](#)
- [HealthLinkBC – Measles \(Rubeola\)](#)

**BCCDC**

- [BCCDC: Measles](#)

**ImmunizeBC**

- [ImmunizeBC – Measles, Mumps, Rubella \(MMR\) vaccine](#)
- [ImmunizeBC – FAQ](#)

**Canada.ca**

- [Government of Canada – Measles vaccine: Canadian immunization guide](#)

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For more HealthLinkBC File topics, visit [www.HealthLinkBC.ca/more/resources/healthlink-bc-files](http://www.HealthLinkBC.ca/more/resources/healthlink-bc-files) or your local public health unit. For non-emergency health information and advice in B.C. visit [www.HealthLinkBC.ca](http://www.HealthLinkBC.ca) or call **8-1-1** (toll-free). For the deaf and hard of hearing, call **7-1-1**. Translation services are available in more than 130 languages on request.