

What causes measles?

- Measles disease is caused by a virus.
- This virus infects humans, causing measles disease in anyone who is not immunized or who has not previously had measles.

What are the symptoms of measles?

- Symptoms of measles are:
 - Fever 38.3° C or higher; and
 - Cough, runny nose or red eyes; and
- Red blotchy rash appearing three to seven days after fever starts, usually beginning behind the ears and on the face and spreading down to the body and then to the arms and legs.

Is measles contagious?

- Measles is extremely contagious.
- The potential spread of measles is a serious health concern.

Am I at risk for measles?

- If you have not had lab-confirmed measles in the past or have not received two doses of a measles-containing vaccine, you are at risk for measles.
- NOTE: persons born before 1970 are generally considered immune because of the likelihood of exposure to measles disease circulating in the population before that time.

How does measles spread?

- As an airborne virus, measles is spread from person to person through the air.
- Measles virus can survive up to two hours in the air even after the contagious person has left the space.
- Measles virus can also be spread through breathing, singing, yelling, coughing and sneezing.

How is measles diagnosed?

- Measles is diagnosed by a combination of symptoms, history of exposure to a measles case, and lab testing including blood tests.
- Since measles is so highly contagious, the source of exposure may not be known or obvious.
- Lab testing is not needed to diagnose disease if you have measles symptoms and were exposed to an infectious measles case (that was confirmed by lab testing).

When are people with measles contagious and for how long?

- A person with measles is contagious even before showing symptoms!
- They are contagious from one day before having any symptoms (which is usually about four to seven days before the rash appears), until four days after the appearance of the rash.

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

- Symptoms of measles can be seen within seven to 21 days of being exposed to measles. If you are at risk for measles, typically you would start seeing symptoms 10 days after exposure.
- Measles can be life-threatening and tends to be more severe in infants and adults.

Can someone get measles more than once?

- It would be very unusual for an individual to have lab-confirmed measles disease more than once.
- Generally, once you have had measles, you are protected against measles for life.

What are the possible complications from measles?

- In addition to the fever, rash and other symptoms, about one in three persons with measles will have one or more complications, including:
 - diarrhea
 - ear infections (which can lead to permanent hearing loss)
 - pneumonia
 - encephalitis (inflammation of the brain)
 - seizures
- A very rare but fatal disease of the brain and spinal cord can also develop months to years after measles infection. This fatal disease is called sub-acute sclerosing panencephalitis (SSPE).
- Measles can also lead to death.
- Complications are more common among children under five years of age and individuals 20 years of age and older.

What should I do if my child/myself have the symptoms of measles?

- If you have symptoms of measles, do not visit any clinic or hospital.
- Instead, please stay home, avoid contact with others, and call Health Link at 811, before visiting any health care facility or provider.

What should I do if I think I'm sick with measles, but am not sure?

- Stay home, avoid contact with others, and call Health Link Alberta at 811 before visiting any health care facility or provider.
- If you have any questions about the measles virus or immunizations, please contact a primary care provider.

I have been exposed to measles. What should I do? Do I need to stay home?

- If you have been exposed to measles, please monitor for symptoms of measles.
- If symptoms do develop, stay home and call Health Link at 811, BEFORE visiting any healthcare facility or provider.

I'm pregnant. Does measles put my unborn baby at risk?

- Yes, your unborn baby could be at risk if you are not immune to measles.
- Measles infection during pregnancy can lead to miscarriage, premature birth, and low birth weight. Birth defects are rare, but possible.
- If you are immune to measles, you will pass measles antibodies to your unborn child, mostly in the last third of your pregnancy. These maternal antibodies will provide some protection against measles to your infant, but this protection will disappear over time.
- Your infant will need to receive their own measles-containing vaccines, to be immune to measles.
- In Alberta, measles-containing vaccine is offered, free of charge, through Alberta's publicly funded immunization program. Children in Alberta typically receive their first dose of vaccine at 12 months of age, and their second dose at 18 months of age. Both doses are needed, to be protected.

I am pregnant and am not sure if I am immune to measles. What should I do?

- Pregnant women who have had two documented doses of measles-containing vaccine are not at risk for measles.
- If you are unsure of your immunization history, please call Health Link at 811 to discuss.
- If you are pregnant, are unsure if you are immune, and have been exposed to measles, please call Health Link at 811 to discuss.
- If you are not immune to measles, you should receive a measles-containing vaccine as soon as possible after your baby is born. (You cannot receive a measles-containing vaccine while pregnant).

Is there a treatment for measles?

- No, there is no specific treatment for measles; treatment is supportive.
- Measles can be prevented through immunization.

Is there medicine to cure the symptoms of measles?

- No, there is no medicine to cure measles.

Can antibiotics cure measles?

- No, there is no medicine to cure measles.
- Antibiotics are not used to cure or treat measles because it is a virus not a bacterial infection.
- Antibiotics may be needed if you develop a bacterial infection like an ear infection or pneumonia which can happen as a result of measles, but antibiotics cannot be used to cure or treat measles.

Is measles preventable? How can I protect myself?

- Immunization is the best defense against measles.
- In Alberta, measles-containing vaccine is offered, free of charge, through Alberta's publicly funded immunization program.
- Children in Alberta typically receive their first dose of vaccine at 12 months of age, and their second dose at eighteen months of age.
- If you are uncertain of your immunization history, or your child's immunization history, please text 'vaccine record' to 88111, call Health Link at 811 or your local public health office.
- For more information on routine childhood immunizations, including for measles, visit ahs.ca/immunize.
- To receive information about measles, text 'measles' to 88111.

Is there a vaccine available for measles?

- Yes. Measles is preventable through immunization with measles, mumps, rubella, and varicella (MMR-Var) or measles mumps and rubella (MMR) vaccine.
- In Alberta, measles-containing vaccine is offered, free of charge, through Alberta's publicly funded immunization program.
- Children in Alberta typically receive their first dose of vaccine at 12 months of age, and their second dose at eighteen months of age.
- Anyone uncertain of their immunization history should contact their local public health office, or Health Link at 811, to discuss.
- If you have any questions about the measles virus or immunizations, please contact a primary care provider.

Who should receive measles immunization?

- Children in Alberta should receive their first dose of measles-containing vaccine at 12 months of age, and their second dose at 18 months of age.
- Measles-containing vaccine is also recommended for individuals born in or after 1970 who have not previously had measles disease.
- Members of the general public born before 1970 are considered immune because they would have been exposed to measles which circulated widely before vaccine was introduced in 1970.

So, if I was born before 1970, I am immune to measles?

- Members of the public born before 1970 are considered immune to measles, as they would have been exposed to measles that circulated widely before 1970. Adults born prior to 1970 should receive a dose of measles-containing vaccine prior to international travel if they do not have a history of laboratory-confirmed measles disease or laboratory evidence of measles immunity.

Do adults need two doses of a measles-containing vaccine?

- Two doses of measles-containing vaccine are recommended for individuals born in or after 1970, who have not previously had measles disease.
- Members of the public born before 1970 are considered immune to measles, as these individuals were exposed to measles when it circulated widely before 1970. Adults born prior to 1970 should receive a dose of measles-containing vaccine prior to international travel if they do not have a history of laboratory-confirmed measles disease or laboratory evidence of measles immunity.

Where and at what cost can I get a measles-containing vaccine?

- In Alberta, vaccine is offered, free of charge, to eligible individuals, through Alberta's publicly funded immunization program.
- Children in Alberta typically receive their first dose of measles-containing vaccine at 12 months of age and second dose at 18 months of age. You can schedule your child for these immunization appointments by calling your local public health office or community health centre.
- If you or your child need the vaccine:
 - Call the Immunization Booking Line at 811 between 8 a.m. and 6 p.m. if you live in Edmonton or Calgary Zone.
 - Contact your local public/community health centre at <https://www.albertahealthservices.ca/info/Page17791.aspx> if you live in another zone.
- For more information on routine childhood immunizations, including measles vaccine, visit [ahs.ca/immunize](https://www.albertahealthservices.ca/info/Page17791.aspx).

My child is late receiving his or her measles vaccine. Can they still get it?

- Childhood immunization is available by appointment in all zones.
- If you or your child need the vaccine:
 - Call the Immunization Booking Line at 811 between 8 a.m. and 6 p.m. if you live in Edmonton or Calgary Zone.
 - Contact your local public/community health centre at <https://www.albertahealthservices.ca/info/Page17791.aspx> if you live in another zone.
- If you are uncertain, you can also call Health Link at 811 to discuss your child's immunization needs.
- For more information on routine childhood immunization, including the recommended immunization schedule, visit [ahs.ca/immunize](https://www.albertahealthservices.ca/info/Page17791.aspx).

My child is less than 18 months of age and has received their first dose of measles-containing vaccine. I want them to receive the second dose before the age of 18 months. Can this be done?

- The second dose of measles vaccine is offered to children at 18 months or older, only. In rare situations, vaccine may be provided earlier than 18 months of age following known exposure to measles, or in control of outbreaks.
- Children aged 12 months to less than 18 months of age who have received one dose of measles-containing vaccine are considered adequately protected for that age range.
- In Alberta, measles-containing vaccine is offered, free of charge, through Alberta's publicly funded immunization program. Children in Alberta typically receive their first dose of vaccine at 12 months of age, and their second dose at 18 months of age.
- Note that in the context of a measles exposure, vaccine may be given outside of the routine schedule to provide protection to an exposed person.

If my child is exposed to measles, and is not immune, can they be excluded from school and/or childcare facilities?

- Yes: under Alberta's Public Health Act, any person in Alberta who **has** been exposed to measles and who **is** susceptible to measles, **are** required to stay home for the period of time starting five days after first exposure to a case of measles through 21 days after the last exposure to a case of measles.
- It's important that susceptible individuals who have been exposed to measles stay home from activities in all public settings during the period of time in which they may develop the disease.
- If you are a parent caring for a child with measles: if you have received at least 2 doses of measles-containing vaccine after 12 months of age, you are protected from measles and will not be excluded from public settings, even if you are caring for a child with measles.
- By staying home, this greatly reduces the risk of further spread of disease to other vulnerable individuals.

How do I know if my child could be excluded from school and/or childcare facility if they were to be exposed to a case of measles?

- Children who do not have two documented doses of measles-containing vaccine, administered at the appropriate intervals on or after the first birthday, will be excluded from all public settings, if exposed to a case of measles. This exclusion will start five days after the first exposure to a case of measles through 21 days after the last exposure to a case of measles.
- If you are a parent caring for a child with measles: if you have received at least 2 doses of measles-containing vaccine after 12 months of age, you are protected from measles and will not be excluded from public settings, even if you are caring for a child with measles.
- In Alberta, measles-containing vaccine is offered, free of charge, through Alberta's publicly funded immunization program.
- Children in Alberta typically receive their first dose of vaccine at 12 months of age, and their second dose at 18 months of age.
- If you are uncertain of your immunization history, or your child's immunization history, please call Health Link at 811 or your local public health office.
- For more information on routine childhood immunization, including measles, please visit www.immunizealberta.ca.

Who should NOT receive the measles vaccine?

- Measles vaccine should not be given to:
 - Pregnant women
 - Individuals with weakened immune systems due to disease or medications.
 - Individuals who have had severe allergic reactions to previous doses of measles-containing vaccine or any of its components.

Does the measles vaccine cause autism?

- No – the measles vaccine is safe.
- All vaccines in Canada go through rigorous testing before being approved for use.
- The claims that some individuals make about concerns with the safety of the measles-containing vaccine are not supported by any scientific research, and in fact, have been debunked, proven false.

Can measles-containing vaccine cause measles?

- No, the vaccine cannot cause measles. The vaccine elicits an immune response necessary to provide protection, without causing clinical disease.

How long does it take for the measles-containing vaccine to work?

- Your body will be protected against measles within two to six weeks of being immunized.
- If you come in contact with measles within that two-to-six-week window, the vaccine can still provide you with protection.
- Remember: without two doses of vaccine at the appropriate ages and intervals, you are not fully protected against measles.

Does measles-containing vaccine fully protect me?

- Two doses of vaccine, at the appropriate ages and intervals, are required to be considered immune to measles.
- One dose of vaccine provides approximately 90-95% protection.
- The second dose of vaccine is required for 99% immunity.
- Everyone's body responds slightly differently to vaccine, so, no vaccine is 100% effective; however, without vaccine, you are 100% at risk.