

## Immunizations at 12 months of age

Immunization has saved more lives in Canada in the last 50 years than any other health measure. Vaccines are the best way to protect your child against many diseases and their complications. When you get your child immunized, you help protect others as well.

### Which vaccines are recommended?

The following vaccines are offered to children at 12 months of age:

- Chickenpox (varicella) vaccine
- Measles, mumps and rubella (MMR) vaccine
- Meningococcal C conjugate (Men-C) vaccine
- Pneumococcal conjugate (PCV 13) vaccine

The vaccines are approved by Health Canada and are provided free as part of your child's routine immunizations. The diseases these vaccines protect against are rare in B.C. because of routine childhood immunization programs. For more information on the recommended childhood vaccines in B.C., see the B.C. Immunization Schedules at [www.healthlinkbc.ca/bc-immunization-schedules](http://www.healthlinkbc.ca/bc-immunization-schedules).

It's important to keep a record of all immunizations that your child has received. If your child received any vaccines outside of B.C., you can update their vaccine record at [www.immunizationrecord.gov.bc.ca](http://www.immunizationrecord.gov.bc.ca).

### What is chickenpox?

Chickenpox is an infection caused by the varicella-zoster virus. It spreads easily through the air when an infected person coughs or sneezes. You can become infected when you breathe in this air or touch contaminated surfaces. The virus may spread through contact with an infected person's saliva such as by sharing food, drinks or kissing. It also spreads

through contact with the fluid from chickenpox or shingles blisters.

Children with chickenpox can have on average 350 red, itchy blisters. Infection in newborns, teenagers, adults, pregnant women and those with weakened immune systems is more severe.

Complications from chickenpox include pneumonia (lung infection), encephalitis (swelling of the brain) and bacterial infections of the skin. Encephalitis can lead to seizures, deafness or brain damage. For some people, the virus can become active again later in life and cause a painful rash called shingles.

The chickenpox vaccine protects against the varicella-zoster virus. The vaccine contains a weakened form of the virus. Children get the chickenpox vaccine as a series of 2 doses. The first dose is given at 12 months of age and the second dose at 4 to 6 years of age.

### What are measles, mumps and rubella?

Measles, mumps and rubella are diseases caused by viruses. The viruses are easily spread through the air when an infected person coughs or sneezes. You can become infected when you breathe in this air or touch a surface contaminated with the virus. The viruses can also spread through contact with an infected person's saliva by sharing food, drinks or kissing.

**Measles**, also known as red measles, causes fever, rash, cold-like symptoms and red, inflamed eyes that can be sensitive to light. It can lead to infections of the ear or lungs. More serious complications, occurring in one person in 1,000, include encephalitis. This can lead to seizures, deafness or permanent brain damage. About one person in 3,000 with measles can die from complications.

**Mumps** causes fever, headache and swelling of the salivary glands and cheeks. More serious complications include encephalitis. About one in 20 people with mumps get mumps meningitis (an infection of the lining of the brain). Mumps can also cause temporary deafness. Permanent deafness occurs in less than one in 20,000 people with mumps. Adults and teens with mumps can have painful swelling of the testicles (about one in 4 cases) or ovaries (about one in 20 cases).

**Rubella**, also known as German measles, can cause serious complications and birth defects in an unborn baby including deafness, eye problems, heart defects, liver damage and brain damage. This is called congenital rubella syndrome. It occurs in about 9 out of 10 babies born to people who become infected with the virus in the first 3 months of their pregnancy. Rubella can also cause miscarriage or stillbirth.

The MMR vaccine protects against:

- Measles
- Mumps
- Rubella

The MMR vaccine contains weakened forms of the measles, mumps and rubella viruses. This vaccine is given to children as a series of 2 doses. The first dose is given at 12 months of age and the second dose at 4 to 6 years of age.

### **What is meningococcal C infection?**

Meningococcal C infection is caused by bacteria called meningococcal type C. It can cause serious and life-threatening infections including meningitis and septicemia (an infection of the blood). For every 100 people who get sick, up to 15 will die, even if they receive treatment. Permanent complications of infection include brain damage, deafness and loss of limbs.

Meningococcal infection is spread from person to person by coughing, sneezing or close face-to-face contact. It can also be spread through

saliva. Babies and young children can become sick through sharing soothers, bottles or toys used by other children. Older children and adults can become sick through activities such as kissing, or sharing food, drinks, cigarettes, lipstick, water bottles, and mouth guards used for sports or mouthpieces of musical instruments.

The Men-C vaccine protects against infection from one of the most common types of meningococcal bacteria, type C. Babies get the vaccine as a series of 2 doses at 2 and 12 months of age.

### **What is pneumococcal infection?**

Pneumococcal infection is caused by *Streptococcus pneumoniae* bacteria. The bacteria can cause serious and life-threatening infections such as meningitis, septicemia and pneumonia. Permanent complications of meningitis include brain damage and deafness. For every 4 children who get sick with pneumococcal meningitis, one may die. Pneumococcal infection is spread from one person to another by coughing, sneezing or close face-to-face contact. It can also be spread through saliva when people share food or drinks. Babies and children can become sick through sharing soothers, bottles or toys used by other children.

The PCV 13 vaccine protects against 13 types of pneumococcal bacteria. Babies get the vaccine as a series of 3 doses at 2, 4 and 12 months of age. Babies with certain health conditions should receive an extra dose at 6 months of age.

### **What are the possible reactions after these vaccines?**

Vaccines are very safe. It's much safer to get the vaccines than to get the diseases. Common reactions to the vaccines may include soreness, redness and swelling where the vaccine was given. Some children may have a fever or experience crankiness, drowsiness, loss of

appetite, nausea, vomiting or diarrhea. These reactions are mild and usually last one to 2 days.

A rash that looks like chickenpox, but with fewer spots, can occur about 2 weeks after getting the chickenpox vaccine. Very rarely, a person who develops a rash after being immunized can spread the virus from the chickenpox vaccine. To prevent spreading it to others, cover the rash until the blisters have dried and crusted over.

Swelling of the glands in the cheeks or neck, and a rash that looks like measles can occur about 7 to 12 days after getting the MMR vaccine. Rarely, more serious reactions can include seizures caused by fever (about one child in 3,000), a temporary drop in the blood cells that help prevent bleeding (about one person in 30,000) and encephalitis (about one person in 1 million). The possibility of getting encephalitis from measles is about one in 1,000 which is much higher than from the vaccine.

Acetaminophen (e.g. Tylenol®) or ibuprofen (e.g. Advil®) can be given for fever or soreness. ASA (e.g. Aspirin®) should not be given to anyone under 18 years of age due to the risk of Reye syndrome.

For more information on Reye syndrome, please visit [HealthLinkBC File #84 Reye syndrome](#).

It's important to stay in the clinic for 15 minutes after getting any vaccine. There is an extremely rare possibility of a life-threatening allergic reaction called anaphylaxis. This happens in less than one in a million people who get the vaccine. Symptoms may include hives, difficulty breathing, or swelling of the throat, tongue or lips. If this reaction occurs, your health care provider is prepared to treat it. Emergency treatment includes

administration of epinephrine (adrenaline) and transfer by ambulance to the nearest emergency department. If symptoms develop after you leave the clinic, call **9-1-1** or the local emergency number.

Always report serious or unexpected reactions to your health care provider.

### Who should not get a vaccine?

Speak with your health care provider if your child has had a life-threatening reaction to a previous dose or any part of these vaccines.

For the chickenpox and MMR vaccines, speak with your health care provider if your child:

- Has an immune system weakened by disease or medical treatment
- Has had a blood transfusion or received other blood products within the past 12 months
- Had a drop in platelets, the blood cells that help prevent bleeding, after getting a previous dose of MMR vaccine without another cause being identified
- Has active untreated tuberculosis

There is no need to delay getting immunized because of a cold or other mild illness. However, if you have concerns, speak with your health care provider.

### For more information

- [HealthLinkBC File #44b Chickenpox \(varicella\) vaccine](#)
- [HealthLinkBC File #14a Measles, mumps, rubella \(MMR\) vaccine](#)
- [HealthLinkBC File #23a Meningococcal C conjugate \(Men-C\) vaccine](#)
- [HealthLinkBC File #62a Pneumococcal conjugate \(PCV 13\) vaccine](#)

---

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.