A Parent's Guide to *Vaccination*

Public Health Agency of Canada
Agence de la santé publique du Canada

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To obtain additional information, please contact:
Public Health Agency of Canada
Address Locator 0900C2
Ottawa, ON K1A 0K9
Tel.: 613-957-2991
Toll free: 1-866-225-0709
Fax: 613-941-5366
TTY: 1-800-465-7735
E-mail: publications-publications@hc-sc.gc.ca

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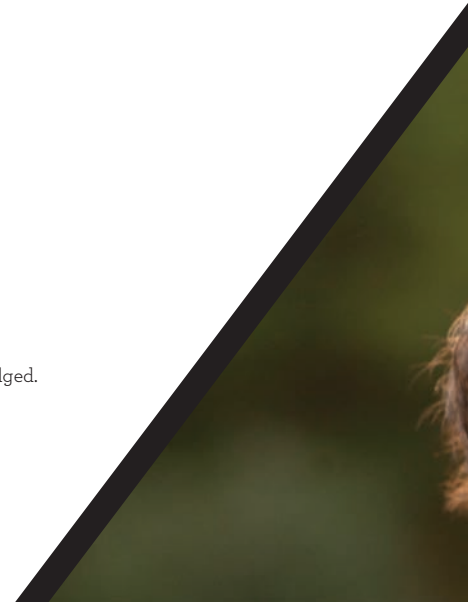


Vaccination is the best way to protect your child's health

Parents are responsible for the well-being of their children, including protecting them from illness caused by diseases that are vaccine-preventable. Learn about vaccination and why it is important to your child's health.

Parents agree that feeding and sleeping schedules are important to help keep children healthy. The same goes for childhood vaccinations. Vaccinating your children is the best way to keep them safe from many serious and potentially deadly diseases. You can help protect your children by getting them vaccinated on time and keeping their shots up to date.

What is a *vaccine?*

Vaccines are made with a tiny amount of dead or weakened germs. They help the immune system learn how to protect itself against disease. Vaccines are a safe and effective way to keep your child from getting very sick from the *real* disease.

Did you know?

Vaccination can also be called immunization, vaccines, shots, or needles. These words mean the same thing.

What is the immune system?

The immune system is a special network in the body that protects you from germs, like bacteria and viruses that cause diseases. Through a series of steps called the immune response, the immune system learns how to recognize germs in order to fight them if your child is exposed to them in the future.

Your child is exposed to thousands of germs daily at home, at daycare or in the grocery store. Even a sweet kiss from a brother or sister can be full of germs. Most of these germs are harmless and are easily handled by your child's immune system. But some germs can make your child very sick.

Thanks to vaccination, your child's immune system learns how to recognize harmful germs. Vaccines help your child to develop the necessary defences to fight disease, and to stay healthy!

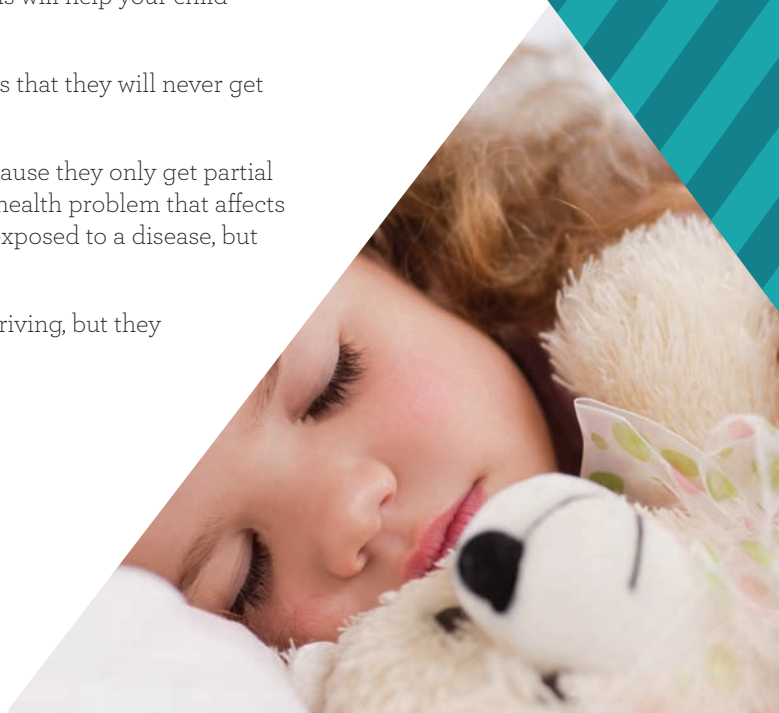
How do *vaccines* work?

The dead or weakened germs in vaccines help your child's immune system to make two important tools: antibodies and immune memory. Together, these tools will help your child recognize and fight off the germs if exposed to them in the future.

Most children are fully protected after they are vaccinated. This means that they will never get serious vaccine-preventable diseases.

In rare cases, children who are vaccinated can still get the disease because they only get partial protection from the vaccine. This is more common in children with a health problem that affects their immune system. They may develop mild symptoms if they are exposed to a disease, but will not suffer serious complications.

It's just like... seatbelts are not 100% effective at protecting you while driving, but they significantly reduce your risk of being injured.



Did you know?

The word immunization comes from the word immune—which means protected from disease.

How are *vaccines* given?

Most vaccines are given by an injection (a needle) into your child's upper arm or thigh. Some vaccines can be given orally (by mouth) or nasally (sprayed into the nose).

Your child can safely get more than one vaccine at a time. Some vaccines protect against several diseases in a single shot, while others are given separately.

What if my child can't be *vaccinated?*

Some children cannot receive certain vaccines due to allergic reactions or other medical conditions. Because they can't be vaccinated, they are at risk of getting diseases that the vaccine would have protected them from.

You can help protect your children by encouraging those around your child to be up to date with their vaccination. Diseases that may not seem serious to adults can be very harmful to vulnerable children.

Did you know?

Your children, like you, should be vaccinated before you travel with them. They may need special vaccinations, or need to be vaccinated earlier than usual.

Diseases prevented by routine *vaccinations*

Vaccinating your children protects them from many vaccine-preventable diseases.

Nearly all these diseases can spread easily from person to person, mainly through coughing and sneezing. They can be serious enough to cause severe complications or even death. Getting your children vaccinated on time gives them the protection they need to stay healthy.

Diseases	Possible symptoms	Possible complications
Diphtheria	› Fever and chills › Sore throat and thick mucous in throat and nose › Difficulty swallowing and breathing	› Breathing and heart problems › Paralysis › Death
Pertussis (whooping cough)	› Starts with mild cold-like symptoms › Violent coughing fits *(may last for months)* › Choking or vomiting after coughing › Difficulty eating, drinking, and breathing *Adults may not have any symptoms but can still infect babies.*	› Pneumonia › Convulsions › Brain damage › Death
Tetanus	› Painful muscle cramps *(begin in neck and face)* › Headache and fever › Trouble swallowing › Seizures *(violent shaking of body)*	› Pneumonia › Broken bones *(from muscle spasms)* › Nerve or brain damage › Death

Diseases	Possible symptoms	Possible complications
Polio	› Fever and fatigue › Nausea and vomiting › Aching or weak muscles	› Severe breathing problems › Paralysis of arms and legs › Death
***Haemophilus influenzae* type b infections**	› Earaches and stuffy nose › Headache and fever › Coughing up thick mucous › Difficulty breathing › Stiff neck and back	› Pneumonia › Permanent hearing loss › Brain damage › Loss of limbs › Death
Measles	› Fever › Cough and runny nose › Red eyes › Sleepiness and irritability › Red rash and white spots in mouth	› Ear infections › Pneumonia › Seizures › Brain damage › Death
Mumps	› Fever and fatigue › Headache or ear ache › Swelling of the cheeks or neck	› Meningitis *(infection of the lining of the brain and spinal cord)* › Deafness › Infertility
Rubella	› Rash › Sore, red eyes › Slight fever › Nausea › Swollen glands	› Internal bleeding › Brain damage › Miscarriage or stillbirth *(women infected while pregnant)* › Birth defects in infant or miscarriage *(if mother infected while pregnant)*

Diseases	Possible symptoms	Possible complications
Varicella (chickenpox)	› Slight fever › Headache and runny nose › Fatigue and general discomfort › Itchy rash becomes blisters that turn into scabs	› Pneumonia › Bone and joint infections › Brain damage › Birth defects in infant *(if mother had chickenpox during pregnancy)* › Death (rare)
Meningococcal infection	› Sudden fever › Severe headache › Nausea and vomiting › Stiff neck › Red marks or tiny pin-size bruises on the skin	› Meningitis *(infection of the lining of the brain and spinal cord)* › Brain damage › Septicemia *(infection of the blood)* › Amputation of hands or feet › Coma/Death
Pneumococcal infection	› Ear aches and stuffy nose › Coughing and difficulty breathing › Fever › Headache › Stiff neck › Loss of appetite and vomiting	› Deafness › Brain damage › Pneumonia › Septicemia *(infection of the blood)* › Meningitis *(infection of the lining of the brain and spinal cord)* › Death

Diseases	Possible symptoms	Possible complications
Influenza (flu)	› Fever and fatigue › Cough › Muscle aches and headache › Sore throat › Nausea, vomiting and diarrhea *(mainly in children)*	› Ear and/or sinus infection › Bronchitis *(inflammation of the airways)* › Pneumonia › Death
Rotavirus	› High fever › Vomiting › Severe, watery diarrhea	› Severe dehydration › Death
Hepatitis B	› Fever and fatigue › Abdominal pain › Nausea, vomiting and diarrhea › Jaundice *(yellowing of eyes and skin)* / Dark urine	› Cirrhosis *(scarring of the liver)* › Liver cancer › Death

Other vaccines, such as the one to protect your child against many strains of human papillomavirus (HPV), will be recommended as your child gets older. Talk to your healthcare provider about the vaccines your child needs to be fully protected.

Visit **Canada.ca/vaccines** to find out more about these and other vaccine-preventable diseases.

If people hardly ever get these diseases, why does my child need to be *vaccinated?*

Diseases that were once common in childhood are now rare in Canada because of vaccines. But they still exist. Just one case of measles can spread quickly when people are not vaccinated. You can still catch measles one hour after an infected person has left the same room. It is not easy to tell who is carrying the germ, or if your child has been exposed.

Many vaccine-preventable diseases have no treatment or cure. In some cases, children can die from complications of a disease.

The best protection is to keep vaccinating.

To better explain the importance of vaccination, here is an analogy: It's just like when we started bailing out a boat that had a slow leak; the boat was full of water (full of diseases). We have been bailing (vaccinating) fast and hard, and now the boat is almost dry. If we stop bailing (vaccinating) the water will continue to come in as there is still a leak (infectious diseases are still present).

Vaccines are safe

Vaccines are safe and provide important benefits for your children's health throughout their lives.

Many parents with young children have not seen the vaccine-preventable diseases mentioned in this guide, so they may not know how serious the diseases are. As a result, parents may worry more about the side effects of vaccines than the diseases they prevent.

How are *vaccines* approved?

Vaccines must go through years of research, followed by testing and retesting before they can be used in Canada. Several systems are in place to monitor the creation, the use, and the safety of vaccines. Each vaccine MUST be proven to be safe and to work before it can be given. Vaccine reactions are reported by healthcare providers to local public health authorities to make sure unusual or unexpected reactions can be dealt with quickly.

Watch our vaccine safety video @ **Canada.ca/vaccines**.

Is the *vaccine* safer than getting the real disease?

Yes. Your child's natural immune system has no problem handling the weak or dead germs in a vaccine. Your child may have a mild fever or a sore arm after vaccination but these side effects only last a few days and should not disrupt daily activities.

However, if an unvaccinated child catches the real disease, the result can be serious, or even fatal. This is because active germs multiply quickly, and your child's immune system is not prepared to defend itself.

Did you know?

Vaccination prevents between two and three million deaths worldwide every year. It is safe, simple and it works!

Your child needs to be *vaccinated* on time

Vaccines work best when they are given on time, beginning when your child is very young. Routine vaccination is free across Canada; however, schedules may differ in each province or territory.

Remember to check that your own vaccinations are up to date. Vaccination is a lifelong process.

Why should I *vaccinate* my child at such a young age?

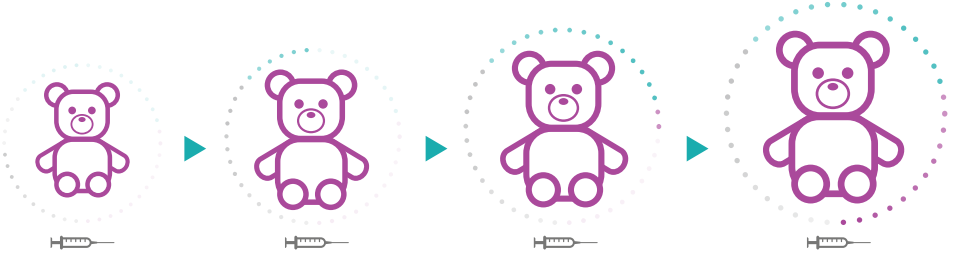
The vaccination schedule is designed to protect your child before they are exposed to vaccine-preventable diseases. Children are vaccinated early in life because they are vulnerable to diseases and the consequences can be very serious. But if vaccinated on time, your child has the most protection as early as possible.

When should my child be *vaccinated?*

Your child needs to be vaccinated at several stages in order to be fully protected. Some vaccines need to be given more than once to build up your child's immune system.

Immunization (vaccination) schedules could be different depending in which province or territory you live in. This means that some provinces or territories will give the same vaccine at different ages. But don't worry, your healthcare provider will give you a vaccination schedule that will tell you which vaccines are needed and at what age. Another way to find your child's immunization schedule is to check **Canada.ca/vaccines** where the schedule for each province and territory is listed.

Here's an example of a typical schedule; to be fully protected, your child will be vaccinated starting at birth or age two months, then at four months, six months, between 12 months and 18 months—and also between ages four to six years. Additional vaccinations are needed for school age children.



Can my child get more than one *vaccine* at a time?

Yes. Some vaccines are given together to protect against several diseases at once. Your child's immune system is AMAZING! It can easily handle more than one vaccine at a time safely and effectively.

Your healthcare provider will let you know which vaccines your child needs at each visit.

Where do I get my child *vaccinated?*

Contact your healthcare provider to find out where to get vaccinations. You can search the Internet for your nearest public health office (Centre Local de Services Communautaires (CLSC) in Quebec).

Did you know?

Babies have the capacity to produce up to one billion antibodies. As such, it is estimated that (theoretically) an average baby could handle up to 10,000 vaccines at one time without concern.

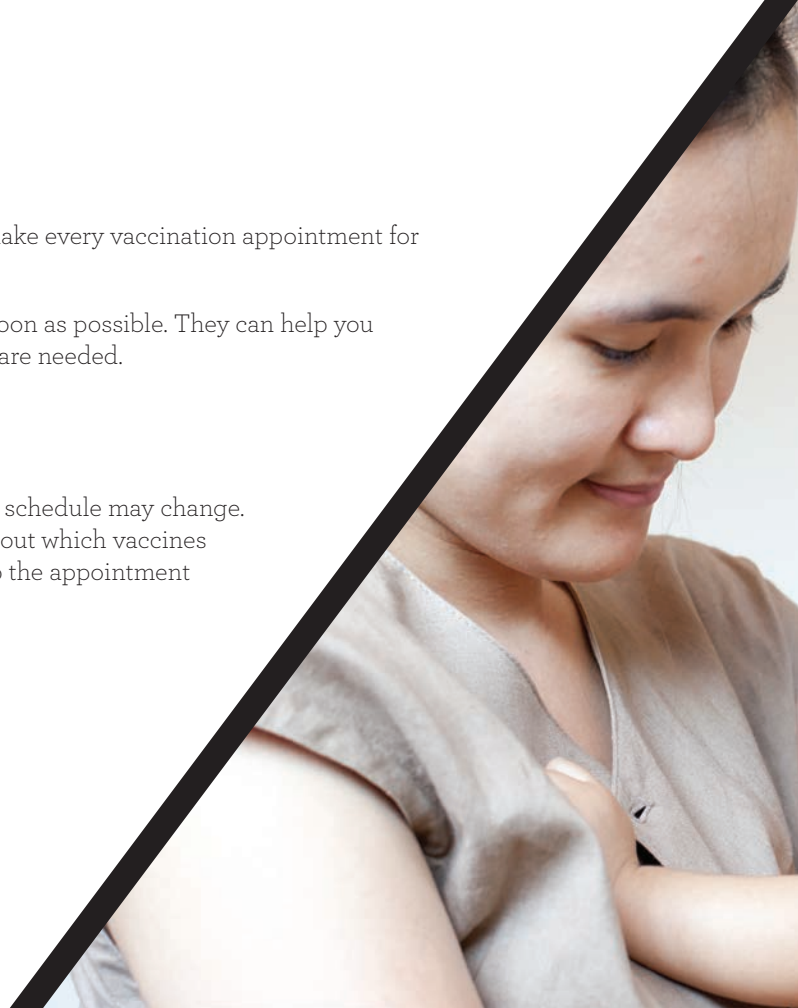
What if we missed a shot?

Life with young children can be very busy. You may not be able to make every vaccination appointment for your child. But it is important to get back on schedule.

You should book an appointment with your healthcare provider as soon as possible. They can help you figure out what vaccines your child has already had and which ones are needed.

What if we move?

If you move to another province or territory, your child's vaccination schedule may change. Once you have moved, contact your new healthcare provider to find out which vaccines may be needed. Remember to take your child's vaccination record to the appointment with you.



Your child depends on you for *vaccination* protection

Getting your children vaccinated on time is one of the most important jobs you have as a parent. When you vaccinate your children, you protect them from serious diseases for the rest of their life.

Why is it important to keep track of your child's *vaccination?*

Proof of vaccination may be requested. In some parts of Canada, children need to have all of their vaccinations up to date before starting school or daycare. This is needed to help prevent the spread of serious diseases in these settings.

Also, your child's vaccination history is helpful if you ever need to take your child to see another healthcare provider or travel outside of Canada.

How do I keep track of my child's *vaccination?*

You will be given a vaccination record (card or booklet) with your child's recommended schedule at your first clinic visit. If your healthcare provider forgets, be sure to ask for one. It is important to bring this record with you every time you visit a healthcare provider. This is to make sure that it can be updated each time your child receives a vaccine.

Are you travelling?

When travelling to another country, you and your family may be at risk for vaccine-preventable diseases. These may include diseases for which vaccines are not routinely given in Canada. It is important to consult a healthcare provider, or visit a travel health clinic, at least six weeks before you travel. Certain vaccines may be recommended depending on your age, where you plan to travel and what you plan to do.

Visit **Canada.ca/travel** for helpful travel advice and information.

What if my child has a cold or fever?
If your child is sick or has a fever when it's time for their vaccination, talk to your healthcare provider. They can assess whether it is okay to give the vaccination or if it is better to wait until your child is no longer sick.

What to expect at your child's first *vaccination*

You can help your child have a positive vaccination experience. Understanding what will happen when your child is vaccinated can make it easier on both of you.

Before the *vaccination*

Remember to take your child's vaccination record with you when you visit your healthcare provider or public health office (CLSC in Quebec). If you don't have a vaccination record, be sure to ask for one.

During the *vaccination*

Your healthcare provider may ask you a few questions about your child's health, such as if they have allergies or health problems.

Here are some things you can do to help your child during the vaccination.

- **Relax.** Your child may react to your emotions.
  When you relax and stay positive, your child will be happier too.
- **Cuddle.** Hold and talk to your child during the vaccination.
  Studies have found that children who are held while getting a needle cry less.
- **Breastfeed**. If you are breastfeeding, try nursing your baby right before, during or after the needle. This will be comforting to your baby.
- **Distract.** Your gentle, soothing voice or touch can help comfort your baby.
  So can a favourite toy, telling a story or singing.

After the *vaccination*

Most children are fine after vaccination. Your child may have no reaction at all to the vaccine. In some cases, your child may:

- be fussy;
- be sleepier than usual;
- have a low fever; or
- have a sore, swollen, or red spot where the needle went in.

These reactions are normal and usually last between 12 and 24 hours. You can give your child medicine to help with the pain or lower the fever. Ask your healthcare provider what medicine is best.

Before you go home

Make an appointment for your child's next vaccination.

You will be asked to wait at the clinic for 15 to 20 minutes after your child's vaccination. This is because, as with any medicine, there is a very slight chance of a serious allergic reaction (anaphylaxis).

Signs of a serious allergic reaction include:

- breathing problems (wheezing);
- swelling of the face; and/or
- blotchy red rash on the skin (hives).

If you see any of these symptoms, talk to a healthcare provider immediately.
They know what to do to counter the allergic reaction.

When to call your healthcare provider

Serious reactions to vaccines are very rare. Call your healthcare provider or public health office (CLSC in Quebec) if your child has unusual symptoms after vaccination.

Unusual symptoms may include:

- a fever above 40°C (104°F);
- crying or fussing for more than 24 hours;
- worsening swelling where the needle went in; and/or
- unusual sleepiness.

You know your child best. If you notice anything that is not normal after a vaccination, check with your healthcare provider.

Where to find more information

It is important to get the facts about vaccination from reliable sources. Talk to a trusted healthcare provider about your child's vaccinations. This can be your doctor, nurse, or pharmacist.

Here are some websites you can trust to find information on vaccination:

Public Health Agency of Canada
Canada.ca/vaccines

Canadian Paediatric Society
caringforkids.cps.ca

Immunize Canada
immunize.ca

The Society of Obstetricians and Gynaecologists of Canada
sogc.org
hpvinfo.ca

There are other free resources you can request @ **Canada.ca/vaccines**:

Not Just For Kids. An Adult Guide to *Vaccination*

Teens, meet *Vaccines*

Checklist for your child's *vaccinations*

- ☐ **Make an appointment.** The first vaccination may start at birth but certainly by the age of two months. Your healthcare provider will give you a schedule for your child.
- ☐ **Bring your child's vaccination record.** You will get this at your first appointment.
- ☐ **Make the next appointment.** Set a date for your child's next vaccination before you leave your healthcare provider's office.
- ☐ **Mark the next date in your cell phone or home calendar.** Do this as soon as possible so you will not forget.

Keep your child's vaccination record in a safe place, so you can find it when you need it.

Remember, vaccination is part of your children's routine care. Keeping vaccinations up to date is important to protect their health.

Canada.ca/vaccines