

“Vaccination against hepatitis B and A

for children in elementary
school grade 4 ”

Hepatitis B and A

WHAT IS HEPATITIS?

Hepatitis is a disease of the liver that can lead to serious complications. There are several types of hepatitis, but the most common are those caused by viruses, such as hepatitis B and hepatitis A.

What is the difference between hepatitis B and hepatitis A?

- Hepatitis B leads to more serious health complications than hepatitis A;
- Hepatitis B – unlike hepatitis A – can make a person contagious for life;
- Hepatitis B is not transmitted in the same way as hepatitis A.

What are the main signs and symptoms of hepatitis B and hepatitis A?

Hepatitis B and A may cause:

- fever
- fatigue
- loss of appetite
- jaundice
- headaches
- stomach pains
- vomiting
- diarrhea

Some people experience no symptoms and therefore do not realize that they have the virus and can pass it on.

HEPATITIS B

How is hepatitis B transmitted?

L'hépatite B is transmitted by contact between a mucous membrane or wound and the blood, sperm or vaginal secretions of an infected person.

For example:

- during unprotected sexual relations (without a condom);
- when sharing needles or any other injection material among drug users;
- during tattooing or body piercing sessions if the equipment used is not sterile.

What are the possible complications of hepatitis B?

Possible complications of hepatitis B are:

- serious liver disease;
- chronic liver infection;
- cirrhosis;
- liver cancer;
- death (1% of cases).

HEPATITIS A

How is hepatitis A transmitted?

L'hépatite A is transmitted when you drink water or eat raw or undercooked food contaminated by the stools of an infected person. This could happen, for example, if an infected person did not wash their hands after going to the bathroom and then prepared food.

What are the possible complications of hepatitis A?

Possible complications of hepatitis A are:

- serious liver disease;
- persistent fatigue (lasting several weeks);
- death (0.1 to 0.3% of cases).

HEPATITIS B AND A VACCINE

How can people protect themselves against hepatitis B and hepatitis A?

Vaccination provides the most effective protection against these two diseases and their complications.

Experts from the Institut national de santé publique du Québec and the Public Health Agency of Canada recommend hepatitis B vaccination for all young people before they become sexually active or indulge in risky behaviour. In other words, before adolescence.

What does the grade 4 elementary school hepatitis B vaccination program involve?

The program's main goal is to **protect children against hepatitis B and its complications.**

Formerly, the vaccine given in the program protected against hepatitis B and required three injections. Since 2008, a combined vaccine has been used – that is, one that protects against both hepatitis B and hepatitis A – which requires two injections only. The combined vaccine is now used for the following reasons:

- the protection against hepatitis B provided by the combined vaccine is comparable to that of the vaccine formerly used (96.5% compared with 99.2%);
- the combined vaccine requires **one less injection**, which means fewer side effects for those that receive it;
- the combined vaccine adds protection against hepatitis A.

The vaccination includes two children's doses of the combined vaccine at an interval of six months given exclusively to children in elementary school grade 4.

How long does protection last?

For people in good health, complete vaccination provides protection against hepatitis B and hepatitis A for at least 20 years. Currently, nothing indicates that a booster dose need be given after several years.

Is it recommended that my child receive the combined vaccine in the following situations?

Situation	Combined vaccine	Reason
If my child has already had hepatitis B?	Yes	To benefit from protection against hepatitis A.
If my child has already had hepatitis A?	Yes	To be protected against hepatitis B, which is the main goal of the vaccination program.
If my child has received hepatitis B vaccine?	Yes	To benefit from protection against hepatitis A.
If my child has received hepatitis A vaccine?	Yes	To be protected against hepatitis B, which is the main goal of the vaccination program.

If you do not wish your child to be given the combined vaccine, you can have him or her vaccinated against hepatitis B only free of charge. For information on the options available, contact your CLSC.

How will my child's vaccination be carried out?

The vaccine will be administered by CLSC nurses at your child's school. Two doses will be given: the first in the fall and the second in the spring. Girls will also receive, at the same times, the first two doses of human papillomavirus (HPV) vaccine.

What are the side effects of the vaccine?

Most children will not experience any side effects after receiving the vaccine. However, others (between 10% and 49%) could experience soreness, swelling or redness around the vaccine injection site. Severe reactions around the injection site are rare.

Some children (fewer than 10% of those vaccinated) will have fever, malaise, fatigue, nausea or vomiting. All the symptoms generally disappear by themselves within a few days.

There is a very small risk of serious allergic reaction after receiving a vaccine. This type of reaction generally occurs within minutes of receiving the injection, and the nurse can take appropriate action immediately.

According to many scientific studies, there is no link between vaccines and chronic health problems such as multiple sclerosis and chronic fatigue syndrome.



What should I do if my child has side effects?

A cold wet compress can relieve reactions around the vaccine injection site.

If your child's temperature is 38.5°C or more, or if he or she has a headache, you can give acetaminophen or ibuprofen.

You can also consult Info-Santé by calling 8-1-1, or a doctor, depending on the severity of the symptoms.

SUMMARY

Québec's hepatitis B vaccination program is aimed at preventing hepatitis B using a combined vaccine which adds protection against hepatitis A and reduces the number of doses required.

Agreeing to have my child vaccinated against hepatitis and hepatitis A will provide him or her with good protection against both diseases.

For more information, go to:

www.msss.gouv.qc.ca/vaccination

If you are the parent of a boy, you can read the following section for information, or go to the end of the brochure and complete the consent form for hepatitis B and A vaccine.

“Vaccination against human papillomaviruses (HPVs)

for girls in elementary
school grade 4 ”

**A vaccine that protects
against cervical cancer and
other diseases associated
with HPVs.**

HPVs

What is HPV?

HPV stands for human papillomavirus. But it is more accurate to speak of human **papillomaviruses** (HPVs). There are close to a hundred different types that can infect different parts of the body.

You can be infected by more than one type of HPV at the same time, and more than once in your lifetime. HPVs are the cause of almost 100% of cervical cancers.

How do HPVs spread?

HPVs are transmitted easily through skin-to-skin contact during sexual activity, even without penetration. HPV infection is the most common sexually transmitted infection (STI).

Who can catch an HPV infection?

Between 70% and 80% of men and women will be infected by an HPV at least once in their lifetime.

What are the signs of HPV infection?

People often do not realize they have been infected by an HPV because there are no signs or symptoms. This means that they can pass on the virus without knowing it.

Some people will develop genital warts, also known as condylomas, which may or may not be visible to the naked eye. These warts can require several visits to the doctor and painful treatments.

What are the complications of HPV infection?

Although an infection may disappear in time without treatment, it can persist for months without causing signs or symptoms. When this happens, HPVs can affect the cervix and cause lesions.

What happens when an HPV causes lesions in the cervix?

Cervical lesions caused by HPVs can become cancerous. This means it is important to detect them by means of a cervical cancer screening test. The most common type of screening test to detect cervical cancer is the Pap test, or cervical smear. However, this test only detects lesions caused by HPVs about once out of every two times. This is why it is preferable to protect oneself against these viruses rather than run the risk of catching them.

In Québec, each year,

- about 68,000 women are treated for lesions detected during a cervical cancer screening test;
- several hundred women are treated for cervical cancer;
- out of those treated for cervical cancer, about 1 woman in 4 will die from the cancer.

70% of all cervical cancers are caused by HPVs of type 16 or 18, which the vaccine protects against.

Other forms of cancer, such as cancers of the vulva, vagina and anus are linked to HPVs, but are rarer in Québec.

How can HPV infections and their complications be avoided?

HPV vaccination before the onset of sexual activity and cervical cancer screening are excellent ways of combating cervical cancer.

Condoms remain the best way of preventing STIs. But since they do not cover the skin around the genitals, transmission of HPVs remains possible.



HPV VACCINE

What does HPV vaccine consist of?

The vaccine used in the Québec vaccination program protects against four types of HPV that are associated with two diseases:

HPV types	Associated diseases
16 and 18	70% of cervical cancers
6 and 11	90% of genital warts

The vaccine does not contain HPVs and cannot cause infection. Its role is to prepare the body's defences (antibodies) against these four types of HPV.

How effective is the vaccine against the four types of HPV?

For anyone not already infected with one of the four types of HPV targeted by the vaccine, protection is:

- 100% against HPV types 16 and 18, which cause cervical cancers;
- 99% against HPV types 6 and 11, which cause genital warts.

This is why vaccination is recommended before the onset of sexual activity.

Does the vaccine replace the need for cervical cancer screening?

No. The vaccine is a method of prevention that protects against the HPVs that cause 70% of cervical cancers and against the HPVs that cause 90% of genital warts. Cervical cancer screening is the only way of detecting abnormal cells in the cervix that could later turn cancerous. Screening tests are unnecessary before the onset of sexual activity.

Why should my daughter be vaccinated in grade 4?

Québec's HPV vaccination program is offered to girls in elementary school grade 4 for the following reasons:

- because the immune system responds best to the vaccine between the ages of 9 and 11;
- because the vaccine is most effective when the person is not already infected. Since infection usually occurs during the first years of sexual activity, it is preferable that girls be vaccinated before their first sexual relations;
- because there is already a vaccination program in grade 4 which protects against another infection, hepatitis B. This makes it possible to optimize the work of nurses and prevent parents from having to make unnecessary trips.

Girls who have not been vaccinated in grade 4 and who wish to be vaccinated later must make an appointment at the CLSC or with their doctor and will have to receive three doses over a six-month period.

How many doses are administered?

Québec experts consider that the best way of protecting young people against HPVs is to give two doses in elementary school grade 4 (one dose in the fall and another in the spring) and a third dose in secondary grade 3. Giving the third dose in secondary 3 provides optimal protection at an age where the risk of being exposed to HPVs increases.

How long does protection last?

Protection conferred by the vaccine lasts for a number of years. Studies are being conducted around the world to evaluate long-term protection. If necessary, a booster dose will be given later to prolong protection.

What are the side effects of the vaccine?

The vaccine is safe. The majority of reactions are not serious and of short duration.

Many people (50% or more) may feel pain and see redness appear around the vaccine injection site. Some people (10% to 49%) may experience swelling, and others (1% to 9%) may feel itching around the injection site.

Some people (10% to 49%) may experience a mild fever or headaches. Some (1% to 9%) could experience nausea, vomiting, insomnia, and joint pains.

The vaccine may cause other symptoms of discomfort which will generally disappear by themselves in a few days.

Severe allergic reactions are very rare. They generally begin a few minutes after receiving the vaccine, so the nurse can then intervene immediately.

Other, rarer reactions have been reported, but it has not been demonstrated that they were caused by the vaccine.

What should I do if my child has side effects?

A cold wet compress can relieve reactions around the vaccine injection site.

If your child's temperature is 38.5°C or more, or if he or she has a headache, you can give acetaminophen or ibuprofen.

You can also consult Info-Santé by calling 8-1-1, or a doctor, depending on the severity of the symptoms.

My daughter is going to receive two vaccines on the same day: a combined vaccine against hepatitis B and another vaccine against four types of HPV.

Is this risky?

No. A person does not run a greater risk when receiving two vaccines in a single session than when receiving one. Administering more than one vaccine on the same day is a safe procedure that is commonly practised around the world.

Will the side effects be worse?

No. The minor side effects that may be caused by the vaccines are concentrated in a single vaccination episode, but they are not greater.

Do similar vaccination programs exist elsewhere?

At present, all Canadian provinces and many countries have included this vaccine in their vaccination program further to the recommendations of the World Health Organization (WHO) and many experts internationally. Among these countries are the United States, Mexico, the United Kingdom, Australia, Belgium, France, Germany, Greece, Italy, Switzerland and Spain. However, the vaccines are not administered in the same way everywhere. Vaccination programs may vary from one province to another and from one country to another.

Why are boys not vaccinated?

At the start of the program, the vaccine was designed only to prevent cervical cancer, and so was given to girls only. Since that time, many scientific studies have shown that vaccinating a high proportion of girls leads to a reduction of infection in boys: HPV vaccine given to girls protects boys against genital warts and against a form of cancer of the anus associated with HPVs. Canadian experts do recommend vaccinating boys against HPVs, but this is not offered free of charge.

IN SUMMARY

Agreeing to have my daughter vaccinated against HPVs will give her good protection against cervical cancer and genital warts (condylomas).

Grade 4 is a good time to give the vaccine because the immune system responds best to the vaccine at this age.

As a parent, I am giving my daughter additional protection against a virus to which most women will be exposed during their lifetime.

For more information on HPVs or for details of the program:

Ministère de la Santé et des Services sociaux du Québec:

www.msss.gouv.qc.ca/vaccination

Society of Obstetricians and Gynaecologists of Canada:

www.infovph.ca

www.masexualite.ca

Public Health Agency of Canada:

www.phac-aspc.gc.ca

Health Canada:

www.hc-sc-gc.ca

For any additional information, contact the

CLSC of your health and social services centre (CSSS).

“Remember to have
your child bring
their vaccination record
with them”



