

## Do vaccines **WORK?**

Vaccination has a solid track record. Over the years, vaccination campaigns have reduced the incidence and severity of many diseases. But vaccines still aren't 100% effective. Their effectiveness can depend on age, missed booster shots, and other factors. About nine recipients out of ten will develop a strong enough immune response. One immune system in ten however can't build up the protection required to do the job. Luckily that one person is still protected by all the vaccinated people who do develop immunity. This is called **herd immunity**. To protect those whose defences can't do it for them, everyone needs to be vaccinated.

## What about **SIDE EFFECTS?**

Certain side effects are possible after a vaccination, including the following:

- **Local reactions:** soreness or swelling around the injection site, rash, itching
- **Other possible reactions:** fever, nausea, vomiting, allergic reactions (hives, anaphylactic shock), etc.

Side effects related to vaccination are generally harmless and last less than two days. Consult your health professional immediately if symptoms persist, such as a fever.

When a vaccine goes on the market, Health Canada creates a file on it so Canadians can quickly and effectively report any side effects they experience. This is the MedEffect tracking program, which can be found at [www.hc-sc.gc.ca/dhp-mps/medeff/index-eng.php](http://www.hc-sc.gc.ca/dhp-mps/medeff/index-eng.php).

### Remember

If you experience a persistent or serious side effect after receiving any vaccine, it is important to discuss it with your health professional.

## Protocole d'immunisation du Québec (PIQ)

The PIQ is an immunization protocol that specifies which vaccinations are provided free of charge. It's designed to check the spread of infectious diseases, minimize complications, and improve **the health of the community**. It is strongly recommended that you have your children vaccinated from earliest childhood and **always** keep your vaccinations up-to-date **whatever your age**.



AGE	VACCINE(S)
<b>2 months</b>	Diphtheria–whooping cough–tetanus–hepatitis B–polio–Hib Pneumococcus Rotavirus
<b>4 months</b>	Diphtheria–whooping cough–tetanus–hepatitis B–polio–Hib Pneumococcus Rotavirus
<b>6 months</b>	Diphtheria–whooping cough–tetanus–polio–Hib
<b>Between 6 and 23 months</b>	Flu (in the fall)
<b>12 months</b>	Pneumococcus Meningococcus C Measles–mumps–rubella
<b>18 months</b>	Diphtheria–whooping cough–tetanus–hepatitis B–polio–Hib Measles–mumps–rubella–varicella
<b>Between 4 and 6 years</b>	Diphtheria–whooping cough–tetanus–polio
<b>Primary 4 (Grade 4)</b>	Hepatitis B (also protects against hepatitis A) Human papilloma virus (girls)
<b>Secondary 3 (Grade 9)</b>	Diphtheria–whooping cough–tetanus Meningococcus C
<b>From age 60</b>	Flu (each fall)
<b>At age 65</b>	Pneumococcus

From [http://www.msss.gouv.qc.ca/sujets/santepub/vaccination/index.php?calendrier\\_de\\_vaccination\\_en](http://www.msss.gouv.qc.ca/sujets/santepub/vaccination/index.php?calendrier_de_vaccination_en)

Printed in Québec – October 2013/007553

Skip the complications

# GET VACCINATED



## Psst!

Plan to stay in shape today

## What exactly is **THE IMMUNE SYSTEM?**

Your immune system protects your body against attack, whether it comes as a tiny insect bite or a serious viral or bacterial infection. The human body has various protective barriers—skin, tears, the respiratory system's mucous membranes, digestive secretions, and intestinal and vaginal flora ("good bacteria"). Their role in the immune system is to prevent intruders from getting inside our bodies. Then there are antibodies—tiny foot soldiers sent to fight for us if the enemy gets past these barriers. When intruders first get in, the body creates specialized antibodies to kill them. Certain cells even store antibodies, in case the same type of invader shows up again. This is called **immunologic memory**.

And therein lies the fundamental principle of vaccination. Vaccines contain living or dead parts of viruses or bacteria that our bodies respond to as if they were a real infection. But they aren't! We trick our body into making antibodies so that we'll have them handy to protect us if a real invader shows up.

### Did you know?

Vaccines can't give you the disease they protect against. They only contain small amounts of virus—never enough to cause the disease.

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## FACT AND FICTION surrounding vaccinations

### The measles vaccine causes autism.

**FICTION.** The idea that the measles vaccine might be connected to autism (a permanent developmental disorder) was at one time much discussed. Some people claimed that the vaccine might be linked to the disorder. Researchers however have examined many years of data from around the world and found no correlation whatsoever between measles vaccination and autism. Conclusion: There is no evidence of any link between the measles vaccine and autism.

### Vaccines contain substances that are hazardous to our health.

**FICTION.** Vaccines contain various substances, such as adjuvants and preservatives. Adjuvants are additives that increase the intensity or duration of the immune response. Preservatives keep vaccines from going bad. To date, none of the substances used in vaccines have been found harmful to health. In any case only minuscule doses of preservatives and adjuvants enter the body during vaccination. Vaccines used in Canada are extremely safe and all must be approved by Health Canada according to the highest safety standards. Their effectiveness is also verified regularly.

## Vaccination during PREGNANCY or while BREASTFEEDING

**Live vaccines** (those containing live virus particles) are not recommended during pregnancy. Measles, mumps, rubella, chickenpox, and yellow fever vaccines are live vaccines. They should generally not be given during pregnancy because of the theoretical possibility that the disease might spread to the foetus.

If you are pregnant or breastfeeding, ask your health professional which vaccines are not recommended, as well as when you can get them, if necessary. Keeping your vaccinations up-to-date is still important, but you should deal with it before becoming pregnant.



## ALLERGIC reactions

Serious allergic reactions to vaccines are very rare—about one incidence per million doses—and generally occur within a few minutes. Serious allergic reactions may mean such reactions as anaphylactic shock (swelling of the respiratory passages that interferes with breathing and can even be fatal), acute generalized urticaria (full-body hives), or a sudden drop in blood pressure. For protection from such unlikely incidents, you will be asked to remain in the health facility where you were vaccinated for **15 minutes** after your vaccination.

### Egg allergies: a concern?

Some vaccines contain minuscule quantities of egg proteins, which could cause an allergic reaction in people allergic to eggs. The measles vaccine, however, does not cause hypersensitivity reactions because it doesn't contain enough egg protein to trigger the response. Comparisons have found that people who are allergic to eggs are no more likely to experience a reaction to the measles vaccine than people who aren't. The MMR (measles-mumps-rubella) vaccine is therefore recommended for people who are allergic to eggs.

For the seasonal flu vaccine however, you should see an allergist (allergy specialist) if you are allergic to eggs. Your allergist can tell you whether your type of allergy allows you to receive the vaccine. Rabies and yellow fever vaccine are two others you should watch out for. Don't hesitate to ask your health professional, who is qualified to guide you and answer your questions.



### Good to know

If you're going on a trip, suffer from a chronic condition, or work in the healthcare field, there's a profusion of other vaccines that might help you. Ask your health professional all about them.

## Seasonal flu vaccine, THE STRAIGHT DOPE

Influenza or the flu is a contagious disease infecting the respiratory passages, which can lead to serious complications in people whose health might be fragile (such as the elderly, pregnant women, young children, and people with chronic respiratory problems.) **The best way to prevent the flu is to get vaccinated.** Many people are a little hazy on the difference between the common cold and the flu. To help clear up any confusion, here is a comparison chart of their symptoms:

SYMPTOM*	FLU	COLD
<b>Fever</b>	Usually Temperature between 38°C and 40°C (100.4°F to 104°F) Sudden onset	Rarely
<b>Cough</b>	Usually Sudden onset	Usually, although mild or moderate
<b>Headaches</b>	Usually, sometimes severe	Rarely
<b>Aches and pains</b>	Usually, sometimes severe	Rarely
<b>Fatigue</b>	Usually severe Lasts several days, sometimes longer	Usually, although mild
<b>Nausea and vomiting</b>	Usually, especially among children Often accompanied by diarrhea and stomach aches among children	Usually, although mild
<b>Nasal congestion and discharge</b>	Rarely	Usually
<b>Sneezing</b>	Rarely	Usually
<b>Sore throat</b>	Rarely	Usually
<b>Chest pain</b>	Occasionally, and may be severe	Occasionally, although mild or moderate

\* Symptoms may vary with age and overall health  
<http://sante.gouv.qc.ca/conseils-et-prevention/differences-entre-la-grippe-et-le-rhume/> (in French only)



### An ounce of prevention...

Seasonal flu vaccination starts on November 1 every year. The vaccine is made from nonliving virus particles. It is **completely safe and can't give you the flu.** The viruses that cause the flu are constantly mutating, which complicates prevention programs such as vaccination. A new vaccine must be developed every year based on viruses found the previous winter. It is important to remember that although the flu vaccine is a very good way to protect yourself against the flu, it doesn't protect you from the common cold or bacterial respiratory infections. And even when you get vaccinated, you might still get the flu during the winter because the vaccine doesn't cover every flu strain.

Everyone eligible should get vaccinated for the flu. It is free for the following groups:

- Infants age 6 to 23 months
- People with chronic health conditions
- Pregnant women (all trimesters)

- People age 60 and over
- Healthcare workers
- Those in contact with members of at-risk groups or babies under 6 months

Anyone who doesn't fall into one of these categories can also get vaccinated for a fee.

There is also a pneumonia vaccine available for people of all ages. For more information, ask your health professional.

## A booklet worth its weight in gold

Your immunization record is an indispensable tool for remembering what vaccinations you've received.

It also shows whether you're received all the recommended doses at the right times. It's all information that can make a difference to your health. Keep it in mind and store it someplace safe!