



CHILDHOOD IMMUNIZATION

The Issue

Vaccines are a safe and effective way to give children immunity against a number of potentially serious diseases.

Background

Babies are born with a certain amount of natural protection against disease, which comes in the form of antibodies they get from their mothers. However, the natural protection does not last past the first year of life and young children are at risk for a number of diseases that can be serious, and even fatal. Fortunately, parents in Canada have free access to vaccines that can immunize their children against such diseases as polio, measles, mumps, and whooping cough.

How Childhood Immunization Works

Childhood immunization helps the immune system build up resistance to disease. It works by giving children vaccines containing tiny amounts of viruses or bacteria that are dead, weakened, or purified components. The vaccines prompt the child's immune system to produce antibodies that will attack the virus or bacteria to prevent disease. The child's immune system stores the information about how to produce those particular antibodies, and responds if the child is exposed to that same virus or bacteria in the future.

In Canada, vaccines to prevent the following diseases are considered routine, and are given free of charge to children in all provinces and territories:

- diphtheria
- pertussis (whooping cough)
- rubella (German measles)
- mumps
- Haemophilus influenza type b disease
- tetanus (lockjaw)
- polio
- measles (red measles)
- hepatitis B

These vaccines are given by needle "shots." In Canada, the hepatitis B vaccine is given alone. The other vaccines are given in combination, according to specific schedules that usually start when your baby is two months old. If you have young children, you should check with your doctor or public health nurse to make sure they are getting the right shots at the right time.

There are also vaccines to protect against varicella (chickenpox), influenza, and some forms of meningitis, but these are not given on a routine basis across Canada. Talk to your health care provider to find out if these shots are right for your child. If your family is planning to travel outside of Canada, you should also make sure that everyone's shots are up to date.

The Benefits and Risks of Childhood Immunization

Vaccines in Canada are safe, and the benefits of immunization far outweigh the risks. There is no reason to suffer from a disease if there is a safe and effective way to prevent it.

Many youngsters have some swelling or tenderness at the spot where the vaccine is injected, and some may also develop a mild fever, but these reactions are minor and temporary. Serious side effects such as severe allergic reactions can occur, but are extremely rare, and occur in Canada less often than once per million doses of vaccine.

On the other hand, the diseases that vaccines fight pose serious threats. Diseases such as polio, diphtheria, measles, and whooping cough can lead to paralysis, pneumonia, choking, brain damage, heart problems, and even death in children who are not protected.

Childhood Immunization is a Public Health Issue

Because of vaccines, these diseases are no longer common in Canada. However, it is still important to immunize your child for the following reasons:

- When immunization rates drop, these diseases come back. For example, a drop in pertussis (whooping cough) vaccinations in Britain in 1974 was followed by a whooping cough epidemic that killed 36 people in 1978.

- Diseases do not stop at borders. People can carry vaccine preventable diseases into Canada and spread them to children who are not vaccinated.

- To protect others. Some people can't have vaccines because of allergies or other reasons. An unvaccinated child with a vaccine-preventable disease is a threat to these people.

Health Canada's Role

Health Canada regulates vaccines through a rigorous licensing process that includes an extensive pre-market review of information about a product's safety and effectiveness, and post-market assessments, such as adverse reaction tracking. In addition, Health Canada monitors and analyzes the incidence of vaccine-preventable diseases, identifies risk factors, develops guidelines for the control of vaccine-preventable diseases, and works with the provinces and territories during emergency situations to help ensure that outbreaks of disease are contained.

Health Canada also participates in public information initiatives, such as the Canadian Immunization Awareness Program, and works globally with other countries to develop and implement disease-reduction or eradication strategies.

Minimizing Your Risks

Our society depends on everyone working together to ensure that all of us can be safe. One of the ways you can play your part

is to make sure that your child gets the right shots at the right time.

- Call your health care provider to set up a time for your child's shots.

- Talk to your health care provider about ways to handle the minor side effects of shots, such as mild fever and tenderness.

- Ask for a written record to help you keep track of your child's shots.

Need More Info?

Visit Health Canada's Division of Immunization Web site at: <http://www.hc-sc.gc.ca/hpb/lcdc/bid/di/index.html>

The following Web sites also offer information about childhood immunization:

The Canadian Immunization Awareness Program
<http://www.immunize.cpha.ca/english/index.htm>

The Canadian Pediatric Society
www.caringforkids.cps.ca

U.S. Centers for Disease Control and Prevention, National Immunization Program
<http://www.cdc.gov/nip>

U.K. Public Health Laboratory Service
[Http://www.immunofacts.com/](http://www.immunofacts.com/)