

Childhood Immunization

Updated:

November 2011

## IT'S YOUR HEALTH

This article was produced in collaboration with the Public Health Agency of Canada.

### **Childhood Immunization**

### THE ISSUE

Vaccines are the most effective way to prevent and control vaccine-preventable infections. Immunizing children is one of the most important ways to protect their health and prevent serious diseases and/or premature death due to infections.



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, this 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 access to publicly funded vaccines to immunize their children against a number of diseases, including polio, measles, mumps and whooping cough.

## HOW CHILDHOOD IMMUNIZATION WORKS

Childhood immunization helps the immune system build resistance to disease. Children

are given vaccines containing tiny amounts of viruses or bacteria that are dead, weakened, or purified. The vaccines prompt the child's immune system to produce antibodies that 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 recommended, and are publicly funded for children in all provinces and territories:

- diphtheria
- meningococcal C
- · Hæmophilus influenzæ type b disease
- mumps
- hepatitis B
- pertussis (whooping cough)
- HPV
- · rubella (German measles)
- invasive pneumococcal disease
- tetanus (lockjaw)
- measles (red measles)
- varicella

These vaccines are generally given by injection (needles or "shots"). Some vaccines target only one disease, while others target more than one, and are administered according to specific schedules that usually start when a child is two months of age. If you have young children, you should check





with your doctor, health provider or local public health authority to make sure they are getting the right shots at the right time.

Some vaccines are not publicly funded in all provinces and territories across Canada. Talk to your health care provider to find out if these shots are right for your child.

#### REDUCE YOUR CHILD'S RISK

Our society depends on everyone working together to make sure 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, like mild fever and tenderness.
- Ask for a written record to help you keep track of your child's shots.

#### TRAVEL AND VACCINES

If your family is planning to travel outside of Canada, you should also make sure that you and your family receive the appropriate vaccines for the countries to which you intend to travel, and that any immunizations that you have received in the past are up to date. This will protect you and your family from diseases that may not be a threat in Canada, but could be in another country.

# THE BENEFITS AND RISKS OF CHILDHOOD IMMUNIZATION

While some parents feel

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Youngsters may experience some swelling or tenderness at the spot where a vaccine is injected, and some may also develop a mild fever. However, these reactions are expected and are both minor and temporary. Serious side effects like life-threatening allergic reactions are possible, but are extremely rare. In fact, they happen less than once per million doses of vaccine administered in Canada.

On the other hand, the diseases that vaccines fight pose much more serious threats. Diseases like 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, many diseases are no longer common in Canada. However, it is still important to immunize your child for the following reasons:

 When immunization rates decrease, these diseases may return and your child could be at risk of getting sick.
 For example, a decrease in measles, mumps and rubella (MMR) vaccinations in the UK starting in 1998 was followed

- - Diseases know no borders. People can carry vaccine-preventable diseases into Canada and spread them to children who are not vaccinated.
  - Protect others. Some infants may
    be too young to have received all the
    vaccines they need and may be at
    risk from vaccine-preventable disease.
    Others are unable to receive vaccines
    or they are ineffective for them due
    to medical reasons. Only through
    the immunization of others can those
    who are not immunized be protected.

## GOVERNMENT OF CANADA'S ROLE



Health Canada regulates vaccines through a rigorous licensing process that includes an extensive review of information about the safety and effectiveness of a product before it reaches the market. Both the Public Health Agency of Canada (PHAC) and Health Canada conduct subsequent assessments of vaccines, which include monitoring for side effects following immunization and checking each new batch of vaccine produced by the manufacturer.

PHAC takes this one step further by monitoring and analyzing the frequency of vaccine-preventable diseases, identifying risk factors, and developing guidelines for the control of these diseases. It also works with the provinces and territories during emergency situations to help ensure that outbreaks of disease are contained.

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PHAC and Health Canada participate in public information initiatives, like the Canadian Immunization Awareness Program, and work globally with other countries to develop and deliver disease-reduction and elimination strategies.

#### FOR MORE INFORMATION

If you experience a side effect (adverse reaction) following immunization, please ask your doctor, nurse, or pharmacist to complete the Adverse Events following Immunization (AEFI) Form at: www.phac-aspc.gc.ca/im/aefi-form-eng.php

- Public Health Agency of Canada's Immunization website at: www.phac-aspc. gc.ca/im/iyc-vve/index-eng.php
- The Parent's Guide to Immunization at: www.phac-aspc.gc.ca/im/iyc-vve/pgi-gpv/ index-eng.php
- Canadian Coalition for Immunization Awareness and Promotion at: www.immunize.cpha.ca
- Canadian Pediatric Society's "Caring for Kids" website at: www.caringforkids.cps. ca/immunization/index.htm
- World Health Organization Vaccines website: www.who.int/topics/vaccines/en/
- U.S. Centers for Disease Control and Prevention's Vaccines and Immunization website at: www.cdc.gov/vaccines/
- It's Your Health fact sheets on vaccines, visit: www.hc-sc.gc.ca/hl-vs/iyh-vsv/alphaeng.php#v

## FOR INDUSTRY AND PROFESSIONALS

- For the Canadian Immunization Guide, 7<sup>th</sup> edition (2006), visit: www.phac-aspc.gc.ca/ publicat/cig-gci/index-eng.php
- National Advisory Committee on Immunization (NACI) recommendations, visit PHAC's website at: www.phac-aspc. gc.ca/naci-ccni/index-eng.php

#### RELATED RESOURCES

- For safety information about food, health and consumer products, visit the Healthy Canadians website at: www.healthycanadians.gc.ca
- For more articles on health and safety issues go to the It's Your Health web section at: www.health.gc.ca/iyh

You can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245\*

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