



Health!

Canada



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shot
work?

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Does the flu shot work?



Another winter, another flu season. Every year from about November to May, Canadians in the tens of thousands are afflicted by the influenza virus.

Medical professionals agree that the best defence against the flu is an annual anti-influenza vaccination. But does it really work? You bet it does.

Give it a shot

A flu vaccination is 70 to 90 per cent effective in preventing the flu in healthy adults, and about 70 per cent effective in preventing flu with fever in children. Your doctor, a medical clinic, a public health nurse or local health unit can provide a vaccination, either free or at minimal cost. The vaccine generally takes effect about two weeks after immunization, and protection may last six months

THE FLU OR A COLD?

You feel miserable, but is it the flu or “just a cold”?

If it's the flu, you'll likely have a fever, body aches (including a headache), a feeling of tiredness, chills, and sometimes stomach ache and diarrhea. If it's a cold, you'll probably sneeze and have a stuffy nose and a sore throat — and maybe a headache.

In either case, you will feel better faster if you stay home and rest, drink lots of fluids, and take aspirin or acetaminophen for head and muscle aches.

or longer. October or November are the best times to be vaccinated.

Influenza vaccine protects against certain strains of influenza. Since the strains of influenza that circulate change every year, it is necessary to make a **new influenza vaccine for each winter**. This is why a yearly flu shot is recommended.

Influenza vaccination cannot cause influenza because the vaccine does not contain live virus. Minor soreness at the injection site lasting up to two days is common. Fever, discomfort, and myalgia (muscle pain) may occur six to 12 hours after vaccination and last a day or so. Allergic reactions are rare. Flu vaccine contains a minute amount of egg protein, which may cause an adverse reaction in some people. If in doubt, check with your doctor.

I got the flu, what do I do?

For most people, the flu usually lasts six to eight days. Symptoms include fever, headache, coughing, loss of appetite, muscle aches, fatigue, and sometimes stomach ache and diarrhea.

Here's what to do if the bug gets you:

- Drink lots of fluids and get plenty of rest.
- Take an analgesic (aspirin or acetaminophen) to relieve head and muscle aches. Children and

WASH YOUR HANDS!

Next to a vaccination, washing your hands is one of the best defences against the flu.

According to *Hand Washing, Cleaning, Disinfection and Sterilization in Health Care*, a study done in 1998 by Health Canada, “hand washing is the single most important procedure for preventing infections.”

To help prevent catching the flu, get in the habit of washing your hands the right way:

- Rinse under warm water first.
- Lather with soap.
- Rub hands together for at least 10 seconds.
- Rinse again under warm running water.
- Dry with a single-use towel or hand dryer.

teenagers with the flu should take only acetaminophen unless their doctor prescribes otherwise.

- Stay home! Don't drag yourself into work or school. You'll only infect your colleagues or classmates.
- Avoid contact with people who are elderly, chronically ill, or have respiratory problems.
- See your doctor if your symptoms don't clear up in about a week.

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Make the world safe for your little ones

The years from birth to three years old are among the most important in a child's development.

In those 36 months, children normally more than triple their weight, learn to communicate, acquire essential physical and mental skills, develop emotional and social attachments, and begin to take their place in the world.

What do kids need to become healthy, happy adults? A good start, and parents or caregivers can provide it.

Safety first, from the first day

Keeping baby safe starts from day one. There are some basic things you should keep in mind:

- By the age of about 4 months, baby is capable of wiggling and rolling over. Never leave baby unattended on a change table or counter top.
- Small babies can't move away from things that might smother them, such as a soft pillow or plush toy. A firm, flat, uncluttered surface is the safest place for baby.
- Never leave baby unattended in the bath.

Each week, 3 babies die of Sudden Infant Death Syndrome in Canada. To reduce the risk of SIDS:

- put your baby on his or her back to sleep
- make sure no one smokes around your baby
- avoid putting too many clothes and covers on your baby
- breastfeed your baby. It may give some protection against SIDS.

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SAFETY TIPS

Toys

- Toys with small parts are dangerous for children under three years. Keep them out of their reach.
- Check toys regularly and throw away broken ones with sharp edges.
- Keep plush toys and soft toys away from stoves, fireplaces, heaters and other sources of heat.

Pacifiers

- Never tie a pacifier around a baby's neck.
- Replace the pacifier every two months, or if it is worn or cracked.
- If your baby starts to chew on the pacifier, replace it with a teething ring.

Strollers

- Choose a sturdy stroller that is recommended for your child's weight and height.
- Always use the harness or lap belt.
- Use the brakes and make sure the wheels are fixed tightly.
- Do not use a stroller on an escalator.
- Do not carry heavy packages or additional children on a stroller.

Cribs and playpens

- Cribs made after September 1986 carry a label to show they're safe. If you can't find the label, don't use the crib.

- Check the crib or playpen often to make sure the frame is tightly adjusted.
- Never tie your baby in the crib or playpen.
- Don't place a necklace or a soother on a cord around your baby's neck.
- Keep the crib or playpen away from windows, curtains, blind cords, lamps, electrical plugs and extension cords.

High chairs

- A safe chair has a wide base to reduce the risk of tipping, a strap that fits between your child's legs, and a waist belt.
- Keep the chair a safe distance away from walls, doors, windows, blind cords, mirrors, appliances and other furniture.

Car seats

- Buckle up your child, every time.
- Always use the correct car seat for your child's height and weight, and make sure the seat is properly installed.
- If your car has a passenger-side airbag, children must ride in the back seat properly buckled up.

AIDS and HIV: NOT OUT OF THE WOODS

Ask the experts if AIDS is declining in Canada, and they'll say yes. Ask them if we're "out of the woods" yet, and the answer will be no, because the annual number of new infections has not declined.

Since 1995, the number of AIDS cases reported per year in Canada has steadily decreased, thanks in large part to improved drug and therapy programs. But there are disturbing new trends.

During the first half of the 1990s, infections decreased among men who have sex with men (MSM) but increased among injecting drug users (IDU) and women. MSM accounted for 53.4% of new positive tests in Canada during 1995-96, compared to 81% before 1995. Positive HIV test reports attributed to IDUs increased from 8.9% during 1985-94 to 29.8% in 1995 and 33.8% in 1996. Before 1995, adult women represented 9.6% of all positive HIV test reports with known age and gender in Canada. This proportion increased to 18.5% in 1995 and 20.4% in 1996.

Since 1996, the epidemic has shifted again. According to national HIV estimates produced by Health Canada, about 4,200 new infections occurred in Canada in both 1996 and 1999, but the composition of these new infections was quite different between the two years.

In 1996, MSM accounted for an estimated 30% of the 4,200 new infections, while IDU accounted for 47% and heterosexuals for 17%. In 1999, the MSM proportion had increased to 38%, IDU had decreased to 34%, and the heterosexual group increased slightly to 21%.

The shift toward fewer infections among IDU is encouraging, but the increase in MSM infections likely means that risk behaviours in this group may be on the rise again. The slow but steady increase in infections among heterosexuals is also of continuing concern.

Canada's Aboriginal population is disproportionately affected by HIV/AIDS. Although Aboriginal persons make up only 2.8% of Canada's population, they comprised 15% of AIDS cases in 1999 and an estimated 8.4% of the new HIV infections occurring in 1999.

More than one epidemic

Donald Sutherland, Director of Health Canada's Bureau of HIV/AIDS, Sexually Transmitted Diseases and Tuberculosis, says the HIV/AIDS picture in Canada is more complex than it first appears.

"In general, although new therapies mean that the number of AIDS cases is declining, and the number of HIV cases progressing to AIDS is down, we are dealing with more than one epidemic," says Dr. Sutherland. "For example, by 1996 there had been a dramatic rise in HIV among injection drug users, but in 1999 it seems to have declined. On the other hand, the epidemic amongst men who have sex with men has started to rise again, and the epidemic among heterosexuals has also been slowly but steadily rising."

The number of persons living with HIV in Canada is rising, from an estimated 40,000 in 1996 to 50,000 in 1999. In the case of AIDS, analysts are concerned that the decline in the

annual number of new cases has been less pronounced since 1997.

Symptoms

People with HIV can sometimes go for many years without getting sick. When chronic symptoms do develop, they may eventually include persistent fever, night sweats, swollen glands, skin sores, extreme fatigue, weight loss, diarrhea, abdominal pain, breathing difficulties, neurological problems, and long-term vaginal infections.

Although HIV and AIDS may not make headlines like they used to, they are just as much a threat to health as ever. AIDS (acquired immunodeficiency syndrome) is caused by the human immunodeficiency virus (HIV). HIV attacks the immune system, leaving people vulnerable to infections and cancers. **AIDS is still fatal.**

Defend yourself

Here are the best ways you can protect yourself against HIV and AIDS:

- Practice safe sex or sexual abstinence.
- Use a condom during sexual intercourse.
- Refuse to share needles if you inject drugs.
- Talk to your partner about the dangers of HIV exposure.

If you think you have been exposed to HIV, get tested. Tests can be carried out by your doctor or in a clinic, and they are confidential.

Find out more online via magazine.health-canada.net

Unpasteurized juice or cider

Know what you are drinking

The unpasteurized juices and ciders you buy at a roadside stand or country fair may be a fun way to support local producers and quench your thirst. But since they have not been heat treated (pasteurized), these products have the potential to carry harmful bacteria that can make some people very ill.

This is why Health Canada introduced a new policy in August, 2000 that encourages producers of unpasteurized juices and ciders to voluntarily label their products as “unpasteurized” and “non pasteurisé”, and to use a defined hygienic production method, known as the **Code of Practice**. The Department also launched a public education campaign to raise awareness among consumers of the risk of illness from unpasteurized products. In cooperation with the Canadian Food Inspection Agency, Health Canada will evaluate the policy over the winter of 2000-2001.

Unpasteurized juices and ciders have been connected to several outbreaks of food poisoning in Canada and the United States. Most often, the identified

cause is a strain of bacteria known as *E. coli* O157:H7. In other cases, *Salmonella* bacteria

have been associated with illnesses in Canada linked to unpasteurized fruit juices.



Symptoms of food poisoning can include stomach cramps, vomiting, fever, and bloody diarrhea. The condition can lead to severe kidney damage and can be fatal in a small number of cases. Young children, the elderly and people with weakened immune systems are at highest risk.

Four million litres of unpasteurized apple juice or cider are sold every year in Canada. About 2% of Canadians drink unpasteurized juice and cider.

How safe is unpasteurized juice?

A pasteurized product is treated at a high temperature or by an alternative process that kills harmful bacteria. The high-temperature method is most often used for milk, and for juices and ciders in bottles, cans and juice boxes that are stocked on grocery store shelves. Concentrated juice and juice from concentrate are also pasteurized.

Unpasteurized juice or cider is most often available at roadside stands, orchards, farmers' markets, country fairs, juice bars, and on ice or in refrigerated display cases at grocery stores.

Most unpasteurized juice and cider are safe because producers have likely followed the Code of Practice. All the same, there are risks of contamination in preparing unpasteurized juices. Fruit that falls to the ground can be contaminated if it comes in contact with animal droppings that contain *E. coli* bacteria, or with birds, rodents, and insects that are carrying bacteria. If

contaminated fruits are used to make unpasteurized juice, the bacteria are transferred to the juice or cider during pressing. Products can become contaminated if water used is from a bacteria-contaminated water source in or near the orchard (for example, an irrigation pond). Poor hygiene or sanitation practices in gathering, transporting or processing the fruit may also contribute to contamination.

How to reduce the risk of contamination

- Boil unpasteurized juice or cider before consuming as an extra precaution.
- Avoid serving unpasteurized juice or cider to those most at risk, such as young children, the elderly, and people with weakened immune systems.
- Refrigerate unpasteurized juice or cider, and respect the expiry dates.
- Freezing or refrigerating unpasteurized juices or ciders will not make them safe if they are contaminated.
- See a doctor immediately at the first sign of illness from food contamination (stomach cramps, vomiting, fever, diarrhea). These symptoms can occur within two to ten days of consuming contaminated food.

Find out more online via magazine.health-canada.net

Does the flu shot work?

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A question that often arises about the flu is, “Why is it so much more prevalent in winter?” Nobody’s sure, but it could be because people congregate more often indoors in cold weather — and that includes buses, trains or airplanes. It could also be that drier indoor air helps flu viruses survive longer.

Danger for the vulnerable

For most of us, the flu is an inconvenience. For some, it can be deadly. From 500 to 1,500 people in Canada die each year from influenza or its complications. The people at high risk to develop serious complications from the flu

- are 65 years of age or older
- have chronic medical conditions such as bronchitis, emphysema, heart disease, diabetes, kidney disease or cancer
- live or work in a nursing home or chronic care facility
- have chronic conditions such as diabetes, cancer, immune suppression, or kidney disease
- are children and adolescents on long term acetylsalicylic acid (ASA) therapy
- have HIV.

Find out more online via magazine.health-canada.net

Make the world safe for your little ones

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The mobile stage

Once baby starts to crawl or walk, whole new worlds open up, filled with adventure...and potential danger. It’s time to eliminate the hazards that could cause harm.

- How about that bookshelf, for instance? Does it have small knick-knacks that could break into sharp pieces or be swallowed? Could it tip over if baby grabs a bottom shelf and pulls?
- Cupboards and lower drawers in the kitchen and the bathroom are favourite playing places for little ones. Make sure there’s nothing in them that could be hazardous, such as household cleaners or medications. Door and drawer locks are a smart idea.
- Place safety gates at the top and bottom of stairs, and put curtain cords out of reach.
- Be aware of small objects left on the floor, loose buttons on a couch, or your other children’s small toys left lying around. They are all headed for baby’s mouth.
- Falls down stairs in baby walkers can cause head injuries. Since 1989, there has been a voluntary ban on their sale in Canada. If you have a baby walker, remove its wheels and throw it out.

Don’t forget that something that didn’t get a second glance a few days ago (like a heavy potted plant, or a hanging curtain cord) is now something baby just has to look at more closely. This means you must re-evaluate and adjust babyproofing levels frequently.

Supervise and teach. Watch your child and use opportunities to teach what is safe and why. (“Stay with me in the yard. If you run onto the road, a car might hit you and hurt you.”) Repeat the safety rules often: kids are easily distracted and can forget.

The toddler stage

The world gets bigger for your child at the walking — and running! — stage. Toddlers are very active and love to do things on their own, like open a door, climb stairs and chairs, turn on the hot water tap, or ride a wheel toy down the driveway to the street.

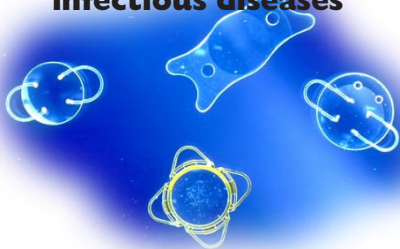
A few precautions will help keep your toddler safe:

- Keep pot handles turned to the back of the kitchen stove.
- Keep knives and sharp utensils out of reach.
- Don’t leave dangling cords from hair dryers and other electrical appliances.
- Put the ironing board and iron away when not in use.
- Don’t use bunk beds.
- Install gates at the top and bottom of stairs.
- Keep your water heater temperature no higher than 50°C (120°F). Your power company can tell you how to regulate it.
- In the workshop or garage, keep all paints, paint removers, insecticides, garden tools and hobby supplies locked and out of reach.
- Make sure there is no loose flooring or carpeting, especially near stairs.
- Supervise your children when they are playing outdoors.

Find out more online via magazine.health-canada.net

Keeping the bugs out

Leading-edge lab in Winnipeg tracks infectious diseases



One of Canada's newest bulwarks against infectious disease would not look out of place in an industrial park, but that's where the resemblance ends. Inside the white multi-storey building near central Winnipeg, Health Canada scientists are at work in a unique state-of-the-art laboratory complex, tracking down the disease-causing agents that threaten our health.

The **Canadian Science Centre for Human and Animal Health (CSCHAH)** is the first in the world to combine human and animal health research under one roof. Researchers from Health Canada and the **Canadian Food Inspection Agency (CFIA)**, working with scientists across Canada and around the world, identify and characterize new infectious agents and the mutants of old ones. Their mission is to keep these bugs out of circulation. Permanently.

The challenge of thwarting disease is great. Some diseases once thought were eliminated are returning, and some bacteria are becoming more resistant to treatment. New and exotic illnesses are emerging in remote corners of the world and being spread by rapid global movement of people, animals and goods.

If a disease breaks out...

...CSCHAH staff give top priority to identifying the cause. Tests on patient specimens help identify possible sources of illness and determine how and where a particular strain of micro-organism may be spreading,

so that the disease can be controlled. Speed and accuracy of the testing are critical to provinces and territories managing a disease outbreak, and to physicians who are treating patients.

Investigating the causes of disease does not take place only during a crisis. The centre gives Health Canada the capacity to perform work on emerging diseases that may pose a risk to Canadians in the future, such as **hemorrhagic fevers, flesh-eating disease, Creutzfeldt Jakob disease and multi-drug-resistant tuberculosis**. So far, these diseases have affected Canadians very little, but left unchecked they could have an enormous long-term impact. As for the "old" diseases, several have returned to haunt us, such as measles, and a strain of meningitis that killed more than 250 young Canadians in 1990.

Why the human-animal research mix?

Some diseases are transmitted from animals to humans. Known as "zoonotic" diseases, they include **rabies, mad cow disease, malaria, hanta virus** and Lyme disease.

Harvey Artsob is chief of the centre's zoonotic diseases and special pathogens program. The challenge he and his research team face is that animal-borne diseases are a moving target.

"Zoonotic diseases are not only important for the illnesses they cause now, but also for their potential to create new diseases that are unknown to us at present," says Artsob. "For example, it took some time for scientists to trace the source of the HIV epidemic to primates." A new outbreak of influenza like the one that killed millions worldwide in 1918 is expected in the next

decade or so, but no one is in a position to predict accurately when it will occur, or what virus will trigger it.

"No one has a complete handle on how viruses or bacteria will migrate or emerge," says Artsob. "International surveillance of disease has been around for only about 100 years, so the methods of detection and tracking are still evolving."

Still, Health Canada is able to identify zoonotic diseases in time to minimize public health problems. "This is the purpose of the centre, to detect and analyse disease agents to prevent their spread," Artsob emphasizes.

One of the leading members of Artsob's team is Heinz Feldmann, an internationally recognized expert on zoonotic diseases and head of the special pathogens laboratory. For Feldmann, it is important to establish the centre's reputation as a reliable source of diagnostic testing on disease-causing agents. "This is called a reference service, and it must be quick and accurate," says Feldmann.

Further down the road, Feldmann foresees a leading-edge research role for the special pathogens laboratory, tracking down agents that cause hemorrhagic diseases such as Ebola, Lassa and yellow fever. "We'll be trying to develop reverse genetic systems to manufacture viruses in test tubes and see how they develop and mutate. These techniques have not been applied to some of the viruses that interest us, so it will be novel work."

Find out more online via magazine.health-canada.net

Newslinks

New approach for medical marijuana use

Health Canada is developing a new regulatory approach to marijuana for medical purposes to bring greater clarity to the process for those Canadians who may request the use of this drug to alleviate symptoms. There needs to be a more defined process for those in pain and suffering.

To date, marijuana is not approved as a drug in any country in the world.

Centres of Excellence for Children's Well-Being

Five Centres of Excellence for Children's Well-Being have been selected by the Government of Canada to lead the way in children's health research. These centres, located in Winnipeg, Ottawa, Montreal, Thunder Bay and Toronto, were chosen out of 70 and will bring together front-line health care practitioners with academics and researchers to address children's and youth's health issues.

The centres will each specialize in child and youth-centred communities, child welfare, early child development, special needs and youth engagement.



Nursing Strategy for Canada

The Federal, Provincial, and Territorial Ministers of Health released *The Nursing Strategy for Canada* at their meeting October 4 in Winnipeg. This report addresses Canada's current nursing crisis, addresses key nursing workforce issues and pinpoints a national goal to achieve an adequate supply of appropriately educated nursing personnel.

The full report and executive summary are available online.

"(T)here is a strong belief that the current shortages in nursing and the dissatisfaction of nurses will not improve without quick and decisive and unified action from policy makers and funders."— From the executive summary of *The Nursing Strategy for Canada*.

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Published by:

Health Canada

0904A Brooke Claxton Building

Ottawa Canada K1A 0K9

Telephone: (613) 957-1100

E-mail: info@www.hc-sc.gc.ca

www.hc-sc.gc.ca