

INFLUENZA SELF-CARE

An illustration of three people. On the left is a man with glasses and a light-colored shirt. In the center is a woman with dark hair wearing a blue top. On the right is a woman with blonde hair wearing a purple patterned cardigan over a white top. The background is a soft, light blue wash.

It's
in
your
hands

Helping people to help themselves and others during influenza season and pandemic

What is influenza self-care?

Each year, influenza-associated illnesses have a substantial impact on an already strained health-care system. The system will be strained considerably more in the case of pandemic influenza.

The Influenza Self-Care Strategy is designed to increase the public's confidence and ability to prevent and treat influenza and to educate them about how best to use the health-care system during regular influenza season and pandemic.

Your role as a health-care provider

As a health-care provider, you have an important role to play in making the Influenza Self-Care Strategy work. Research shows that the greatest successes in changing long-term behaviour occur when a health education program is offered and supported by health-care providers while in direct contact with their clients/patients i.e. integrated into the health-care system.

This booklet contains critical information your clients/patients need in order to care for themselves and others during influenza season and pandemic. You can help them to help themselves by providing this information during consultations.

The Influenza Self-Care Strategy addresses four areas of concern:

1 Informing the public (page 4)

2 Prevention and self-care (page 6)

3 Managing the illness: Adults (page 8)

4 Managing the illness: Children (page 10)

Informing the public

INFLUENZA

Influenza is an infection of the respiratory tract caused by one of three virus types:

- Influenza A, which causes the most severe and widespread disease, infects mammals (including pigs and horses) and birds;
- Influenza B, which infects only humans (commonly children);
- Influenza C, which is mild and rare.

In North America, influenza usually affects people between November and April. The virus is defined by two surface proteins (antigens): Haemagglutinin (H) and Neuraminidase (N), which undergo frequent minor changes (antigenic drift), causing local outbreaks every two to three years. Most previously-infected individuals will continue to have some protection against the slightly changed virus.

Pandemic influenza

Three to four times each century, a radical change occurs in the genetic material of the influenza A virus, and a new subtype will suddenly appear with a completely new H or N antigen (antigenic shift). Protection people have developed to the influenza that occurs every year will not apply. The virus will spread rapidly around the world, causing a global epidemic (pandemic) with the potential to cause serious illness, death, and social and economic disruption. The World Health Organization (WHO) monitors influenza virus strains circulating in humans. Nations world-wide, Canada included, are preparing contingency plans.

Influenza transmission

The influenza virus is passed from person to person by droplets and small particles of respiratory fluid when an infected person coughs, sneezes or talks. Airborne droplets can enter the body through mucus membranes of the eyes, nose or mouth. The virus, contained in droplets, can travel one to two metres in the air. It can live for one to two days on hard surfaces; eight to 12 hours on cloth, tissue or paper; and five minutes on hands.

People develop symptoms of influenza from one to three days after becoming infected. They can spread the virus from one day before and up to five days after the onset of symptoms.



SYMPTOMS OF INFLUENZA

Primarily these include:

- sudden fever $\geq 38^{\circ}\text{C}$ (100.4°F)*.
- dry cough.
- aching body, especially head, lower back and legs.
- extreme weakness/ tiredness, not wanting to get out of bed.

Other symptoms can include

- chills.
- aching behind the eyes.
- loss of appetite.
- sore throat.
- runny/stuffy nose.

* For people older than 75 years, the temperature may be lower, e.g. 37.2°C (99°F). They may also experience vomiting, diarrhea or abdominal pain.

Usually fever resolves in three to five days and the person experiences a general sense of improvement. Tiredness and cough can persist for several weeks.

Influenza symptoms are distinct from those of a cold or gastroenteritis.

How serious is influenza?

Certain groups are at risk to develop serious complications, such as pneumonia, which may even result in death. They include:

- children < two years and seniors, because they have weaker immune systems.
- those whose immune systems are compromised by disease or medication/treatment.
- those with certain chronic illnesses, such as heart or lung disease.

Effect of influenza

Each year, influenza-associated illnesses have a major effect on school/work absenteeism and productivity, and on an already strained health-care system.

IS IT INFLUENZA, A COLD OR STOMACH FLU?

Symptoms/Description	Influenza	Common Cold	Stomach Flu
Fever	Usually high	Sometimes	Rare
Chills, aches, pains	Frequent	Slight	Common
Loss of appetite	Sometimes	Sometimes	Common
Cough	Usual	Sometimes	Rare
Sore throat	Sometimes	Sometimes	Rare
Sniffles or sneezes	Sometimes	Common	Rare
Involves whole body	Often	Never	Stomach/bowel only
Symptoms appear quickly	Always	More gradual	Fairly quickly
Extreme tiredness	Common	Rare	Sometimes
Complications	Pneumonia; can be life threatening	Sinus infection Ear infection	Dehydration

Prevention and self-care

ANNUAL IMMUNIZATION

Because the influenza virus is always changing, a new vaccine is needed yearly. WHO recommends a vaccine that targets the three most likely strains to circulate in the next influenza season. The best time to be immunized is during October and the first half of November, just before the influenza season, as it takes two weeks for the vaccine to become fully effective. However, it is not too late to get immunized once influenza has arrived in the community. The vaccine cannot cause influenza because the virus in the vaccine is killed. The vaccine is 70-90 per cent effective in young, healthy people and protection lasts about six months. For those with weakened immune systems, the vaccine is less effective, but immunization can reduce morbidity.

Since vaccine strains are selected six to nine months before the start of influenza season, there is a slight chance the strain may change before the season actually starts. The vaccine will **NOT** protect against other respiratory illnesses.

Who should be immunized?

- those at greatest risk of serious complications.
- caregivers, volunteers, health-care workers and others capable of transmitting the disease to people who are at risk.

Alberta Health and Wellness covers the cost for at risk individuals. Some employers offer vaccine to their staff. People who are not at risk may be immunized for a fee. Everyone should be encouraged to take advantage of these opportunities.

Who should not be immunized?

- those severely allergic to eggs, because viruses used to make vaccine are grown in eggs.
- people who have severe allergies to any component of the vaccine.
- those with severe reactions to a previous vaccine.
- children under six months of age.
- those with acute febrile illness (they can be immunized once symptoms have abated).

Vaccine reactions

The most common reaction is some redness and soreness at the injection site, which usually resolves in two days. Some may develop a fever, tiredness and aching after six to 12 hours that may last for one to two days. Rarely a person has an allergic reaction to some other component of the vaccine within 12 hours.

What about antiviral medications?

Antivirals (oseltamivir or amantadine) may be prescribed, unless contraindicated, for:

- those at risk who cannot be immunized.
- those at risk who are immunized after influenza enters the community and who require protection for the two-week vaccine response period.
- non-immunized contacts of people who are at risk.
- those at risk in an outbreak when the circulating strain is different from the vaccine strains.

Pneumococcal polysaccharide vaccine

This vaccine protects against the 23 strains of bacteria that most often cause pneumonia following influenza. Alberta Health and Wellness covers the cost of this vaccine for those who are at risk, including:

- people \geq 65 years.
- residents of long-term care facilities.
- individuals \geq two years with certain chronic conditions.

Most need the vaccine only once in their lifetime. It can be given at the same time as the influenza vaccine, or anytime of the year.

Pneumococcal conjugate vaccine is given to infants, starting at age two months, as part of Alberta's routine immunization program.

Where to get immunized

- local public health centres by appointment, or at an off-site influenza immunization drop-in clinic.
- many physicians' offices.
- some pharmacies and work sites.

HAND WASHING

Next to immunization, the single most important way to prevent influenza is frequent hand washing.

Wash hands

BEFORE:

- preparing, serving or eating food or feeding others.
- brushing or flossing teeth.
- inserting or removing contact lenses.
- treating wounds/cuts (and after).

Good hand hygiene is especially important for children in day care.

AFTER:

- any contact with a person with influenza or their immediate environment.
- toileting self or others or changing a diaper.
- blowing nose or wiping a child's nose.
- coughing or sneezing.
- handling garbage.

Children should wash their hands after playing with toys shared with other children.



Respiratory etiquette

- Use disposable tissues for wiping nose and discard immediately into waste container.
- Cover nose and mouth when sneezing or coughing.
- Wash hands after coughing, sneezing or using tissues.
- Keep fingers away from the eyes, nose and mouth.

Other ways to minimize transmission

- Avoid crowds during influenza season.
- Visit those who have influenza only if necessary, and stand more than one metre away from them.
- If a household member has influenza, keep their personal items separate. Clean surfaces around them frequently with detergent cleanser. Do not shake their linens.
- Do not share personal items or drinks.

Caring for oneself

A strengthened immune system can be achieved through physical and emotional well-being:

- drinking plenty of water.
- not smoking.
- having regular exercise.
- taking a multivitamin daily, if an older adult.
- decreasing stress, staying optimistic and socially active.

Planning ahead

Everyone - especially those living alone, single parents of young children, or caregivers of frail or disabled people - should be encouraged to prepare for when they may contract influenza. They should:

- have enough fluids and household items (e.g. tissues) at home to last one to two weeks.
- have antipyretics and a thermometer (knowing correct use).
- identify a backup caregiver for loved ones/children.

Employers should be encouraged to develop contingency plans to address high rates of illness and support employees while still maintaining services.

Managing the illness: Adults

GENERAL SELF-CARE MEASURES

Adults who have contracted influenza should:

- rest.
- avoid contact with others while contagious (five days), if possible
- drink extra fluids.
- gargle with warm salt water; use throat lozenges, saline nose drops, a humidifier.
- avoid smoking and second hand smoke.
- talk to others about concerns and ask for help if needed. Keeping in touch by phone or email can help alleviate feelings of aloneness when sick.
- treat symptoms with over-the-counter (non-prescription) medication with careful attention to the following guidelines.

Over-the-counter medications (OTCs)

Most people treat influenza with OTC medications that contain several active ingredients.

People should be encouraged to consult with a pharmacist or their health-care provider regarding dosing, contraindications, side effects, etc.

General OTC guidelines

- To prevent adverse reactions or taking in substances that have little/no effect, take an OTC remedy that treats only one symptom and/or has only one active ingredient.
- If taking more than one medication at a time, check the labels to avoid taking the same ingredient twice.
- Try "regular strength" before "extra strength."
- Follow instructions on the label and note any possible side effects or drug/health condition interactions.
- Check the expiry date and take outdated medications to a pharmacy for disposal.
- Keep all medications out of the reach of children.

USE ALL MEDICATIONS AS DIRECTED ON THE LABEL.



Treating specific symptoms with OTCs

Muscle pain and fever

Acetaminophen (preferred for older adults) or ibuprofen.

Cough

Dextromethorphan (DM) for dry cough, only if it interrupts sleep or causes chest discomfort. Delsym® and Benylin-Dry Cough® contain DM without other ingredients.

Nasal congestion

Decongestant nose drops/sprays provide rapid short term relief. Watch for rebound congestion after two or three days, then switch to oral decongestants (e.g. pseudoephedrine).

Sore throat

Lozenges, throat sprays. Dyclonine (e.g. Sucrets®) will numb the throat; products with honey, herbs or pectin will soothe.

Complementary medicines

There is some research that shows the following may help shorten influenza illness or lessen its severity: Vitamins E and C, COLD-FX® (ginseng), Echinacea Plus® (herbal tea), elderberry (Sambucol®), quercetin, Bifidobacterium breve, homeopathic Oscillocoquinum, gingyo-san (traditional Chinese herbal medicine), Kan Jang (Andrographis paniculata).

Health-care providers should be informed about complementary medicines taken by clients and advise them on potential disease/drug interactions.

When to seek medical care

Primary concerns for adults are compromised respiratory function, dehydration and sepsis.

Adults with influenza should seek medical care if they have heart or lung disease or any other chronic condition that requires regular medical attention; an illness or treatment that suppresses the immune system; or frailty.

Individuals should seek medical care promptly if they have:

- shortness of breath while resting or doing very little.
- difficult or painful breathing.
- wheezing.
- coughing up of bloody sputum.
- chest pain.
- fever for three to four days without improvement or worsening.
- improvement, then sudden high fever or recurrence of symptoms.
- extreme drowsiness and difficulty awakening.
- disorientation or confusion.
- severe earache.
- new inability to function, if an independent elder.
- persistent vomiting, if elderly.

Prescribed medications - adults

- Antibiotics are not prescribed for uncomplicated influenza but may be for complications such as pneumonia.
- Antivirals must be started within 48 hours of the first symptoms of influenza to decrease length and severity of the illness.

Managing the illness: Children

SYMPTOMS

Influenza illness is more severe in children under five years old.

Age-related differences are evident in infants and toddlers. Infants usually develop higher temperatures, and unexplained fever may be the only sign.

Central nervous system symptoms may appear in up to 20 per cent of infants/children and may be suggestive of meningitis. Nausea, vomiting, diarrhea and abdominal pain occur in 40-50 per cent, mainly those three years of age and under.

Influenza is an important precursor of croup, pneumonia and bronchitis. Otitis media and non-purulent conjunctivitis are more frequent. Myositis is a frequent complication, especially after infection with Influenza B.

Very young children and infants probably have symptoms similar to older children and adults but do not know how to tell caregivers. They may be irritable, eat poorly, and develop a hoarse cry and barking cough (croup).

Children over five years of age and adolescents have symptoms similar to adults.

Caring for children

Treat symptoms if necessary using:

- Acetaminophen as the preferred medication to treat fever and muscle pain. Take the child's temperature before giving an antipyretic. Do not wake a child to administer an antipyretic. Ibuprofen is an alternate medication but should **not be** used for children less than four months old.

Children under 18 years should NOT take acetylsalicylic acid (ASA) or any products containing ASA, because of the potential for Reye's Syndrome.

- Cough suppressant (DM) for a dry cough in children older than two years only if cough is interrupting sleep (not for asthmatics or moist cough).
- Saline nose drops or spray - decongestant sprays in children over six months, oral decongestants with older children, if needed.
- Throat lozenges or warm salt water for gargling. This may help children over six years of age.



Other measures:

- Dress a child in lightweight clothing and keep room temperature at 20°C.
- Offer fluids/breast feed frequently while child is awake.
- Settle the child or involve them in quiet activities while at home (~five days).
- Use a humidifier (except with asthmatic children).
- Elevate head of the bed; infants may be more comfortable in a car seat or baby swing.
- Cool baths/alcohol rubs are NOT recommended.

Humidifiers should be cleaned every day to prevent mold blowing in the air.

- *Use hot water with one part bleach to 10 parts water.*
- *Scrub the inside with a cloth or bottle brush to get into tight corners.*
- *Rinse well with hot water.*

When to seek medical care

Primary concerns for children with influenza are respiratory compromise, dehydration, secondary bacterial infection and neurological complications (more common in very young infants and children with chronic disease).

Almost all children with influenza have fever – the presence or absence of fever as a sign of severity of influenza is not helpful.

Parents/caregivers are advised to seek medical care for a child with influenza if the child:

- is < three months old.
- has heart or lung disease or any chronic illness requiring regular medical care.
- has disease or is on treatments causing immunosuppression.
- takes ASA regularly for a medical condition.
- has a change in respiratory pattern with an increased respiratory rate and signs of labored breathing.
- is very listless with a loss of interest in most things, e.g. playing, watching TV, eating/drinking.
- is excessively irritable and inconsolable.
- has significantly reduced urine output, for example urinates less often than every six hours while awake; or has a dry diaper for more than three hours if younger than six months, or longer than six hours if six to 23 months old.
- looks very ill and the caregiver is worried.

When to take a child to hospital emergency

If the child:

- has severe trouble breathing (not caused by nasal congestion).
- has blue lips or hands or sudden pallor, or has cold legs up to their knees.
- has a full or sunken fontanel.
- is limp or unable to move.
- is excessively sleepy to the point of being difficult to arouse or unresponsive.
- shows signs of pain: headache and/or stiff neck, especially if combined with fever and listlessness and their eyes are sensitive to light.
- seems confused.
- has a seizure.

For more information contact:

Health Link Alberta

Edmonton, call 408-LINK (5465)

Calgary, call 943-LINK (5465)

Outside Edmonton and Calgary local calling areas,
call toll-free 1-866-408-LINK (5465)
visit: www.healthlinkalberta.ca

Public Health Centres
(Monday - Friday, daytime hours), or
physicians or pharmacists

Alberta Health and Wellness

visit: www.health.gov.ab.ca

Fact Sheets Available:

- Pandemic influenza
- Hand washing to prevent influenza
- How to take a temperature – children and adults
- Over-the-counter (non-prescription) medications for influenza
- Influenza antiviral medications
- Dealing with stress or feelings of fear because of influenza