

What is the H1N1 flu virus?

Pandemic H1N1 Flu Virus

The pandemic H1N1 flu virus is different than regular seasonal flu. In spring 2009, the H1N1 flu virus emerged in North America. This is a new strain of influenza and because humans have little to no natural immunity to this virus, it can cause serious and widespread illness.

Seasonal Flu

Influenza, or the flu, is a common and highly contagious, respiratory disease that affects the nose, throat and lungs. Influenza viruses can change rapidly. That's why there's a new flu shot made every year to protect against the circulating virus strains. Yearly exposure to existing strains of the flu provides some level of immunity to seasonal flu.

How is H1N1 spread?

When someone coughs or sneezes, tiny droplets filled with virus can travel up to two metres away. If these droplets land in your eyes, nose or mouth, you may become infected with the virus.

What is an influenza pandemic?

An **influenza pandemic** is declared when a new strain of influenza (flu) virus that has never been seen before emerges and begins to spread quickly around the world. The H1N1 virus is new, so people have little or no natural immunity to it. The H1N1 flu virus spread quickly around the world and in June 2009, the World Health Organization declared an influenza pandemic.

Symptoms of the flu virus (H1N1 and seasonal)

Everyone is at risk of catching the H1N1 flu virus — even healthy, young adults.

Almost always:

- Sudden onset of cough and fever

Common:

- Fatigue
- Muscle aches
- Sore throat
- Headache
- Decreased appetite
- Runny nose

Sometimes:

- Nausea
- Vomiting
- Diarrhea

People who are generally healthy and develop these flu symptoms can get better at home. The worst of the infection will likely be over within one week. If you have flu-like symptoms and are otherwise healthy, stay home to avoid spreading the virus.

Severity Indicators

If you develop the following symptoms, you need to see a health care provider right away:

- **Shortness of breath**, rapid or difficulty breathing
- **Chest pain**
- Bluish or grey skin color
- Bloody or coloured mucus/spit
- Sudden dizziness or confusion
- Severe or persistent vomiting
- High fever lasting more than three days
- Low blood pressure

Additional symptoms to watch for in children:

- Not drinking enough fluids or eating
- Not waking up or interacting
- Irritability; not wanting to play or be held

People at Risk of Complications

The following groups are *not* more likely to get the H1N1 virus. However, they are more at risk of developing complications if they do get sick:

1. Children under five years of age (especially those less than two years old)
2. Women who are pregnant
3. People with chronic conditions such as:
 - Heart disease
 - Liver disease
 - Kidney disease
 - Blood disorders
 - Diabetes
 - Severe obesity
 - Asthma and chronic lung disease
 - Immunosuppressed (people taking cancer drugs or people with HIV AIDS)
 - Neurological disorders

Early treatment can help to reduce the risk of complications, so it's important that you speak to a medical professional if you develop flu symptoms, and seek medical care if the symptoms worsen.

IMPORTANT If you have flu symptoms and you have one of these risk factors, contact a health care provider as soon as possible.

Prevention

You can play an active role in staying healthy and preventing the spread of the H1N1 flu virus. Follow these simple steps:

- Wash your hands frequently
Wash your hands often with soap and warm water for at least 20 seconds to help remove bacteria and viruses. Wash before and after eating, after you have been in a public place, after using the washroom, after coughing and sneezing and after touching surfaces that may have been contaminated. An alcohol-based hand sanitizer is also effective in killing viruses.
- Keep your hands away from your face
In most cases, the H1N1 virus enters the body through the eyes, nose or mouth.
- Cough and sneeze into your arm, not your hand
If you use a tissue, dispose of it as soon as possible and wash your hands.
- Get immunized
Get your H1N1 flu shot.
- Keep common surface areas clean and disinfected
Doorknobs, light switches, telephones, keyboards and other surfaces can become contaminated with all kinds of bacteria and viruses. Regular cleaning and disinfecting of these surfaces with normal household disinfectants can help. Viruses can live on hard surfaces for up to 48 hours.
- Stay healthy
Eat healthy foods and stay physically active to keep your immune system strong.
- If you get sick, stay home
If you think you have the flu and are otherwise healthy, you should stay home from school or work until your symptoms are gone. If your symptoms get worse, call your health care provider.

Vaccine and Antivirals

What is a vaccine?

Vaccines are injections that give you a high level of immunity to a virus. Each time a new virus is discovered, a new vaccine must be developed (even for seasonal flu). In Canada, there will be enough H1N1 vaccine for everyone who wants and needs it. Those who need it most will get it first. Each province and territory is responsible for setting up programs to administer the vaccine to the public.

What is an antiviral?

Antivirals are prescription medications used to treat viral illnesses, including the flu. If taken shortly after getting sick (within the first 24 to 48 hours), they can reduce flu symptoms, shorten the length of illness and may reduce serious complications. They are available in two forms: **a pill (called oseltamivir or Tamiflu®) or an inhaler (called zanamivir or Relenza®).** If a doctor prescribes antivirals for you, it's important that you finish your entire prescription. This will avoid the risk of the virus becoming resistant to the drugs. Antivirals are effective against seasonal and H1N1 flu.



If you have been diagnosed with H1N1 (Swine) flu, you should:

Stay home, follow your doctor's orders, and watch for signs that you need immediate medical attention as noted *Severity Indicators*.

Remain at home for 7 days after your symptoms begin or until you have been symptom-free for 24 hours, whichever is longer.

If the patient is a healthcare provider, they should remain off work until 24 hours after all symptoms other than a mild cough has resolved, typically a period of 5 to 8 days.

However, healthcare providers who have been treated with oseltamivir (Tamiflu®) for 72 hours will not be as infectious and may return to work if they feel generally well except for a mild cough.

Staff should consult with Occupational Health for a return to work assessment

Avoid close contact with others, especially those who might easily get the flu, such as people of any age with chronic medical conditions (such as asthma, diabetes, or heart disease), pregnant women, young children, and infants.

Wear a facemask – if available and tolerable – when sharing common spaces with other household members to help prevent spreading the virus to others. This is especially important if other household members are at high risk for complications from influenza.

Get plenty of rest.

Drink clear fluids such as water, broth, sports drinks, or electrolyte beverages made for infants to prevent becoming dehydrated.

Cover coughs and sneezes.

Clean hands with soap and water or an alcohol-based hand rub often, especially after using tissues and after coughing or sneezing into your hands.

Caring for someone who is sick

Here are some ideas and suggestions to keep in mind when caring for someone who is sick. Most people who get sick with the H1N1 flu virus can be cared for at home. People with risk conditions — such as asthma or diabetes — should not look after people who are sick, if possible.

Step #1 Protect yourself and others

Clean your hands with either soap and warm water or an alcohol-based hand sanitizer after touching items that the sick person has touched (such as dishes, towels and clothes), before you eat and before and after touching your eyes, nose or mouth.

If possible, have the sick person wear a mask to control the spread of virus filled droplets.

This is especially important, when someone is within two metres or six feet of a sick person.

If the sick person cannot wear a mask, encourage the use of a tissue when coughing and sneezing. Dispose of the tissue immediately.

There is no evidence that wearing a mask will protect you from getting the flu. However, if you wear a mask, wash your hands before and after putting on, or taking off, the mask.

Step #2 Allow the sick person to rest (away from others)

It is expected that anyone sick with the H1N1 flu virus will need lots of rest and will be contagious for about seven days from the onset of the symptoms - especially in the first few days.



Clean items (such as the phone, TV remote) and surfaces that the sick person has touched using normal household disinfectant. The virus can survive on hard surfaces for up to 48 hours. The sick person can resume normal activities 24 hours after symptoms are resolved.

Step #3 Treat the fever and cough

Fever often comes with chills or aches and pains. Certain medications (such as acetaminophen, for example Tylenol[®], or ibuprofen, for example Advil[®]) may help to reduce these symptoms. Do not give Aspirin[®] to children to treat a fever, as it has been linked to Reye's Syndrome^{1 1} A potentially fatal disease associated with aspirin consumption by children with viral diseases.

Step #4 Give lots of fluids and nutritious food and ensure a smoke-free environment

Warm drinks, such as tea with honey and lemon or chicken soup, can be very soothing for a sore throat. The sick person may not have an appetite, but simple foods may be welcomed. Cigarette smoking is hard on the lungs of a person with an infection. The sick person should avoid smoking. Second-hand smoke is harmful also, so people should not smoke around the sick person.

Step #5 Keep the sick person's things separate

Each sick person should have his/her own personal items (towel, face cloth, toothbrush etc.) and they should be kept separate from the belongings of others in the house. Wash your hands after touching the items belonging to the sick person and avoid touching your eyes, nose or mouth. Keep common surfaces (door knobs, light switches) clean and disinfected.

Step #6 Stay alert for complications

When treated at home with proper care, most people will begin to feel better after a few days. Take the sick person's temperature daily to track any fever. Sometimes people with underlying medical conditions - such as asthma or diabetes - may develop complications and so may need to see a health care provider.

IMPORTANT See Symptoms for a list of severity indicators. If any of these complications occur, call a health care provider. Monitor yourself and other family members for flu symptoms.

Planning Ahead

Helping Others

- Speak with family, friends and neighbours to figure out how you might help each other during the flu season.
- It is good to know who can look after you and your family members in case you get sick. The best caregiver is someone who does not have risk factors for complications of the flu (see Symptoms). ➤ Pregnant women, for example, should not take care of someone who is sick with the H1N1 flu virus, if at all possible.
- Below is a planning checklist that identifies the types of things you need to consider when creating your preparedness plan for yourself, your family, friends, neighbours, etc.
- Consider a back-up person who can provide care in case the main caregiver becomes sick or must to go to work.
- Who will help the sick person go for a health care assessment and get antiviral medications (if needed)?
- Who will look after the sick person for the first few days to ensure they get plenty of rest, fluids, food, comfort items, and watch for complications?
- Who will help with tasks such as child care, pet care, cooking and housework?
- Who will provide care for your children if the daycare centre or school is closed because of the pandemic?



- Be sure to have a back-up plan if child care facilities or schools close and you must continue working.
- If your school or daycare centre closes, students and children will be encouraged not to hang out in large numbers in other places.

Preparedness Kit

Put together a home preparedness kit *before* anyone gets sick. When you are sick, you won't want to go out and get groceries or health supplies.

Here are some examples of household items that you may want to have in your home:

- Non-perishable food
- Canned soups
- Frozen or canned fruits, vegetables, meats and fish
- Frozen or canned juices, tea bags
- Easy dinners, such as spaghetti and tomato sauce
- Breakfast cereals, honey, sugar or sweetener
- Bottled water, Tetra Pak milk or soy milk
- Baby food or formula
- Pet food
- Health and cleaning supplies
- **Thermometer**
- **Hand soap**
- **Pain and fever medication** (e.g. acetaminophen, for example Tylenol[®], or ibuprofen, for example Advil[®])
- Supply of prescription medications
- Masks (optional)
- Alcohol-based hand sanitizer
- Cough suppressants, cough lozenges (not for children under six years old)
- Laundry detergent
- Garbage bags
- Household cleaning supplies
- Tissues, toilet paper
- Feminine hygiene products, diapers and wipes

For more information:

Visit the MOHLTC's pH1N1 website at ontario.ca/flu (click on the link to "Public Information" in the left-hand column)

Public Health Agency of Canada - <http://www.phac-aspc.gc.ca/index-eng.php>

Public Health Agency of Ontario - <https://www.publichealthontario.ca>