



## Influenza:

Flu, also called influenza, is an infection of the nose, throat and lungs, which are part of the respiratory system. The flu is caused by a virus. Influenza is commonly called the flu, but it's different from the stomach "flu" viruses that cause diarrhea and vomiting.

Most people with the flu get better on their own.

But sometimes, influenza and its complications can be deadly. Some groups of people are at a higher than average risk of having flu complications, including:

Young children, especially those age 12 months or younger.

People who plan to be pregnant, are pregnant or recently gave birth during flu season.

Adults older than age 65.

People who live or work in facilities with many other residents. Examples are those in nursing homes and military barracks, as well as people who are in the hospital.

And in the United States, some groups have a higher risk of needing treatment in the hospital for flu. Those groups include people who are American Indian or Alaska Native, Black or Latino.

### **Other groups at high risk for flu complications include people with:**

Weakened immune systems.

A body mass index (BMI) of 40 or higher.

Nervous system disorders or conditions that change how the brain processes information.

And people with certain medical conditions have a higher risk of flu complications, such as:

People who have chronic illnesses, such as asthma, heart disease, kidney disease, liver disease and diabetes.

People who have had strokes.

People who are younger than 20 years of age and receiving long-term aspirin therapy.

Although the annual influenza vaccine isn't 100% effective, it lowers the chances of having severe complications from the flu. This is especially true for people who are at high risk for flu complications.

## **Products & Services**

A Book: Mayo Clinic Guide to Home Remedies

### Symptoms

At first, the flu may seem like a cold with a runny nose, sneezing and sore throat. Colds usually start slowly. But the flu tends to come on quickly. And while a cold can be miserable, you usually feel much worse with the flu.

Common symptoms of the flu often — but not always — include a fever as well as aching muscles, chills and sweats.

### **Other symptoms include:**

Headache.

Dry, persistent cough.

Shortness of breath.

Tiredness and weakness.

Runny or stuffy nose.

Sore throat.

Eye pain.

Vomiting and diarrhea also are flu symptoms. But they are more common in children than in adults.

## **When to see a doctor**

Most people who get the flu can treat themselves at home and often don't need to see a healthcare professional.

If you have flu symptoms and are at risk of complications, see your healthcare professional right away. Taking antiviral medicine to treat the flu may shorten the length of your illness and help prevent more-serious problems.

If you have emergency symptoms of the flu, get medical care right away. For adults, emergency symptoms can include:

Difficulty breathing or shortness of breath.

Chest pain.

Ongoing dizziness.

Seizures.

Worsening of existing medical conditions.

Severe weakness or muscle pain.

Emergency symptoms in children include all the symptoms seen in adults, as well as:

Gray or blue, lips or nail beds.

Dehydration.

## **Causes**

Influenza is caused by viruses. These viruses travel through the air in droplets when someone with the infection coughs, sneezes or talks. You can inhale the droplets directly. Or you can pick up the germs from touching an object, such as a computer keyboard, and then touching your eyes, nose or mouth.

People with the virus are likely contagious from about a day before symptoms appear until about 5 to 7 days after they start. Children and people with weakened immune systems may be contagious for a slightly longer time.

Influenza viruses are constantly changing, with new strains appearing often. If you've had influenza in the past, your body has already made antibodies to fight that specific strain of the virus.

If future influenza viruses are like those you've come across before, either by having the disease or by getting vaccinated, those antibodies may prevent infection or lessen its severity.

But antibody levels may decline over time. And antibodies against past influenza viruses may not protect you from new influenza strains. New strains can be very different from whRisk factors

Factors that may raise your risk of getting the flu or its complications include:

**Age.** Seasonal influenza tends to have worse outcomes in young children, especially those age 12 months and younger. Adults older than age 65 also tend to have worse outcomes.

**Living or working conditions.** People who live or work in facilities with many other residents, such as nursing homes, are more likely to get the flu. People who are staying in the hospital also are at higher risk.

**Weakened immune system.** Cancer treatments, anti-rejection medicines, long-term use of steroids, organ transplant, blood cancer or HIV/AIDS can weaken the immune system. This can make it easier to catch the flu virus and may increase the risk of developing complications.

**Chronic illnesses.** Chronic conditions may increase the risk of influenza complications. Examples include asthma and other lung diseases, diabetes, heart disease, nervous system diseases, previous history of stroke, metabolic disorders, problems with the airway, and kidney, liver or blood disease.

**Race or ethnicity.** In the United States, people who are American Indian or Alaska Native, Black, or Latino all may have a higher risk of influenza complications.

**Aspirin use under age 20.** People who are younger than 20 years of age and receiving long-term aspirin therapy are at risk of developing Reye's syndrome if infected with the influenza virus.

Pregnancy. Pregnant people are more likely to develop influenza complications, particularly in the second and third trimesters. This risk continues up to two weeks after the baby is born.

Obesity. People with a body mass index (BMI) of 40 or higher have an increased risk of flu complications.

### Complications

If you're young and healthy, the flu usually isn't serious. Although you may feel awful while you have it, the flu usually goes away in a week or two with no lasting effects. But children and adults at high risk may develop complications that may include:

Pneumonia.

Bronchitis.

Asthma flare-ups.

Heart problems.

Ear infections.

Acute respiratory distress syndrome.

Pneumonia is one of the most serious complications. For older adults and people with chronic illnesses, pneumonia can be deadly at you had before.

## Prevention

The U.S. Centers for Disease Control and Prevention (CDC) recommends annual flu vaccination for everyone age 6 months or older. The flu vaccine can lower your risk of getting the flu. The flu vaccine lowers your risk of having serious illness from the flu and needing to stay in the hospital due to flu. The flu vaccine also lowers your risk of dying of flu.

Flu vaccination is especially important because the flu and coronavirus disease 2019 (COVID-19) cause similar symptoms. Both COVID-19 and the flu may be spreading at the same time. Vaccination is the best way to protect against both.

And if a COVID-19 vaccine or booster and a flu vaccination are due at the same time, you can often get vaccinated for both in one visit.

This year's seasonal flu vaccines each provide protection against the four influenza viruses expected to be the most common during this flu season. This year, the vaccine will be available as an injection and as a nasal spray. There also will be high-dose flu vaccines offered for adults age 65 and older.

The nasal spray is approved for people between ages 2 and 49 years old. It isn't recommended for some groups, such as:

People who had a severe allergic reaction to a flu vaccine in the past.

Pregnant people.

Children age 17 years or younger who are taking aspirin or a salicylate-containing medicine.

People with weakened immune systems and caregivers or close contacts of people with weakened immune systems.

Children between ages 2 and 4 years old diagnosed with asthma or wheezing in the past 12 months.

People who recently took antiviral medicine for the flu.

People with a cerebrospinal fluid leak or the potential for a leak, as with a cochlear implant.

If you have an egg allergy, you can still get a flu vaccine.

### Controlling the spread of infection

The influenza vaccine isn't 100% effective, so it's also important to take several measures to lower the spread of infection, including:

Wash your hands. Wash your hands well and often with soap and water for at least 20 seconds. If soap and water aren't available, use an alcohol-based hand sanitizer with at least 60% alcohol. Make sure friends and family that you're around regularly, especially kids, know the importance of hand-washing.

Avoid touching your face. Keeping your hands away from your eyes, nose and mouth helps keep germs away from those places.

Cover your coughs and sneezes. Cough or sneeze into a tissue or your elbow. Then wash your hands.

Clean surfaces. Regularly clean often-touched surfaces to prevent spread of infection from touching a surface with the virus on it and then your face.

Avoid crowds. The flu spreads easily wherever people gather — in child care centers, schools, office buildings and auditoriums and on public transportation. By avoiding crowds during peak flu season, you lower your chances of infection.

Also avoid anyone who is sick. And if you're sick, stay home for at least 24 hours after your fever is gone so that you lessen your chance of infecting others.

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**By Mayo Clinic Staff**