Influenza (“flu”) is a contagious disease. It is caused by the influenza virus, which spreads from infected persons to the nose or throat of others. Other illnesses can have the same symptoms and are often mistaken for influenza. But only an illness caused by the influenza virus is really influenza.

Anyone can get influenza, but rates of infection are highest among children. For most people, it lasts only a few days. It can cause:

- fever
- sore throat
- chills
- fatigue
- cough
- headache
- muscle aches

Some people get much sicker. Influenza can lead to pneumonia and can be dangerous for people with heart or breathing conditions. It can cause high fever and seizures in children. On average, 226,000 people are hospitalized every year because of influenza and 36,000 die – mostly elderly.

Influenza vaccine can prevent influenza.

Live, attenuated influenza vaccine (nasal spray)

There are two types of influenza vaccine:

Live, attenuated influenza vaccine (LAIV) contains live but attenuated (weakened) influenza virus. It is sprayed into the nostrils rather than injected into the muscle.

Inactivated influenza vaccine, sometimes called the “flu shot,” is given by injection. This vaccine is described in a separate Vaccine Information Statement.

For most people influenza vaccine prevents serious influenza-related illness. But it will not prevent “influenza-like” illnesses caused by other viruses.

Influenza viruses are always changing. Because of this, influenza vaccines are updated every year, and an annual vaccination is recommended. Protection lasts up to a year.

It takes up to 2 weeks for protection to develop after vaccination.

LAIV does not contain thimerosal or other preservatives.

Who can get LAIV?

Live, intranasal influenza vaccine is approved for healthy people from 2 through 49 years of age, who are not pregnant. This includes people who can spread influenza to others at high risk, such as:

- Household contacts and out-of-home caregivers of children from birth up to 5 years of age.
- Physicians and nurses, and family members or any one else in close contact with people at risk of serious influenza.

Influenza vaccine should be given to anyone who wants to reduce the likelihood of becoming ill with influenza or spreading influenza to others.

LAIV may be considered for:

- People who provide essential community services.
- People living in dormitories or under other crowded conditions, to prevent outbreaks.

Some people should not get LAIV

LAIV is not licensed for everyone. The following people should check with their provider. They may be advised to get the inactivated vaccine (flu shot).

- Adults 50 years of age and older or children 6 months up to 2 years of age. (Children younger than 6 months cannot get either influenza vaccine.)
- Children younger than 5 with recurrent wheezing.
- People who have long-term health problems with:
  - heart disease
  - kidney disease
  - lung disease
  - metabolic disease, such as diabetes
  - asthma
  - anemia, and other blood disorders
- Anyone with a weakened immune system.
- Children or adolescents on long-term aspirin treatment.
- Pregnant women.
- Anyone with a history of Guillain-Barré syndrome (a severe paralytic illness, also called GBS).

Inactivated influenza vaccine is the preferred vaccine for people (including health-care workers, and family members) coming in close contact with anyone who has a severely weakened immune system (that is, anyone who requires care in a protected environment).
Some people should talk with a doctor before getting either influenza vaccine:

- Anyone who has ever had a serious allergic reaction to eggs or another vaccine component, or to a previous dose of influenza vaccine.
- People who are moderately or severely ill should usually wait until they recover before getting flu vaccine. If you are ill, talk to your doctor or nurse about whether to reschedule the vaccination. People with a mild illness can usually get the vaccine.

5 When should I get influenza vaccine?

Plan to get influenza vaccine in October or November if you can. But getting vaccinated in December, or even later, will still be beneficial in most years. You can get the vaccine as soon as it is available, and for as long as illness is occurring. Influenza illness can occur any time from November through May. Most cases usually occur in January or February.

Most people need one dose of influenza vaccine each year. Children younger than 9 years of age getting influenza vaccine for the first time should get 2 doses. These doses should be given at least 4 weeks apart.

LAIV may be given at the same time as other vaccines.

6 What are the risks from LAIV?

A vaccine, like any medicine, could possibly cause serious problems, such as severe allergic reactions. However, the risk of a vaccine causing serious harm, or death, is extremely small.

Live influenza vaccine viruses rarely spread from person to person. Even if they do, they are not likely to cause illness.

LAIV is made from weakened virus and does not cause influenza. The vaccine can cause mild symptoms in people who get it (see below).

Mild problems:
Some children and adolescents 2-17 years of age have reported mild reactions, including:
- Runny nose, nasal congestion or cough
- Headache and muscle aches
- Abdominal pain or occasional vomiting or diarrhea

Some adults 18-49 years of age have reported:
- Runny nose or nasal congestion
- Cough, chills, tiredness/weakness
- Headache

These symptoms did not last long and went away on their own. Although they can occur after vaccination, they may not have been caused by the vaccine.

Severe problems:
- Life-threatening allergic reactions from vaccines are very rare. If they do occur, it is usually within a few minutes to a few hours after the vaccination.
- If rare reactions occur with any product, they may not be identified until thousands, or millions, of people have used it. Over six million doses of LAIV have been distributed since it was licensed, and no serious problems have been identified. Like all vaccines, LAIV will continue to be monitored for unusual or severe problems.

7 What if there is a severe reaction?

What should I look for?
- Any unusual condition, such as a high fever or behavior changes. Signs of a serious allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?
- Call a doctor, or get the person to a doctor right away.
- Tell your doctor what happened, the date and time it happened, and when the vaccination was given.
- Ask your doctor, nurse, or health department to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form.

VAERS does not provide medical advice.

8 The National Vaccine Injury Compensation Program

In the event that you or your child has a serious reaction to a vaccine, a federal program has been created to help pay for the care of those who have been harmed.

For details about the National Vaccine Injury Compensation Program, call 1-800-338-2382 or visit their website at www.hrsa.gov/vaccinecompensation.

9 How can I learn more?

- Ask your immunization provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call 1-800-232-4636 (1-800-CDC-INFO)
  - Visit CDC’s website at www.cdc.gov/flu