Influenza (Flu)



Self-study course



This brochure is available in alternate formats. Call 1-800-282-8096 (V/TTY)

Course objectives:

At the end of this course you will be able to:

- 1) Identify a series of steps your body goes through to provide immunity against vaccine preventable diseases.
- 2) Identify what influenza is.
- 3) Identify health practices that can help reduce ones exposure to the flu.
- 4) Identify who should, and should not, be vaccinated.

Flu self-study

Our need for immunizations does not end when you reach adulthood. Getting immunized is a lifelong, life protecting community effort regardless of age, sex, race, ethnic background or country of origin. Recommended vaccinations begin soon after birth and continue throughout life. The specific immunizations you need as an adult are determined by factors such as your age, lifestyle, type and location of travel, overall health and previous immunizations.

Immunizations, also called vaccinations, help protect you from disease. Most vaccine-preventable diseases are caused by germs that are called "viruses" or "bacteria." Vaccines to help prevent these diseases generally contain weakened or killed viruses or bacteria specific to the disease. Vaccines help your body recognize and fight these germs and protect you each time you come in contact with someone who is sick with any of these diseases.

There are a series of steps that your body goes through in fighting these diseases: First, a vaccine is given by a shot or a nasal spray; second, over the next few weeks the body makes antibodies and memory cells against the weakened or dead germs in the vaccine; third, the antibodies fight the real disease germs if the person is exposed to the germs and they invade the body. The antibodies will help destroy the germs and the person will not become ill. Sometimes an immunization does not completely prevent the disease, but it will significantly reduce its severity. Finally, antibodies and memory cells stay on guard in the body for years after the vaccination to safeguard it from the real disease germs.

Most vaccines are given to babies and young children, but some are needed throughout your lifetime to make sure you stay protected. This protection is called immunity.

Getting immunized is important for at least two reasons: to protect yourself and to protect those around you. A successful vaccination program depends on the cooperation of every person.

In the U.S., vaccines have reduced or eliminated many infectious diseases that once routinely killed or harmed many infants, children and adults. However, the viruses and bacteria that cause vaccine-preventable disease and death still exist and can be passed on to people who are not protected by vaccines. Even though some diseases, such as polio, rarely affect people in the U.S., these diseases still exist in other countries.

Travelers can unknowingly bring these diseases into the U.S. and infect people who have not been immunized. Without the protection from immunizations, diseases could be imported and could quickly spread through the population, causing epidemics. Non-immunized people living in healthy conditions are not protected from disease; only immunizations prepare the immune system to fight disease organisms.

What is the flu?

The flu is a contagious respiratory illness caused by the influenza (flu) viruses. It can cause mild to severe illness, and at times can lead to death. While most healthy people recover from the flu without complications, some people, such as older adults and people with certain health conditions, are at high risk for serious complications from the flu. The flu differs in several ways from the common cold, a respiratory infection also caused by viruses. For example, people with colds rarely get fevers or headaches or suffer from the extreme exhaustion that flu viruses cause.

The flu spreads in respiratory droplets from coughing and sneezing. It usually spreads from person to person, though occasionally a person may become infected by touching something with the virus on it (say a door handle, or a telephone) and

then touching their mouth or nose. The incubation period for influenza is one to four days, with an average of two days. Adults typically are infectious from the day before symptoms begin through approximately five to seven days after illness onset. So it is possible to give someone the flu before you know you're sick, as well as while you are sick!

October or November is the best time to get vaccinated, but you can still get vaccinated in December and later. Flu season can begin as early as October and last as late as May.

Who should be vaccinated?

Certain people who are considered "high risk" should be vaccinated on a yearly basis. People in the following groups should seek vaccinations:

- All children 6-23 months
- Adults 65 years and older
- Persons 2-64 years with underlying chronic medical conditions*
- All women who will be pregnant during the influenza season
- Residents of nursing homes and long-term care facilities
- Children 6 months to 18 years on chronic aspirin therapy
- Health care workers involved in direct patient care
- Out-of-home caregivers and household contacts of children younger than 6 months

*Chronic medical conditions are diagnoses such as diabetes, heart or lung disease.

There are some people who should not be vaccinated. These include:

- People who have a severe allergy to chicken eggs
- People who have had a severe reaction to an influenza vaccination in the past
- People who have developed Guillain-Barre syndrome (GBS) within 6 weeks of getting an influenza vaccine previously
- Children younger than 6 months
- People who are sick with a fever (These people can get vaccinated once their symptoms lessen.)

The vaccines

There are two types of vaccines used in the prevention of the flu. The first type is the one most people are familiar with, the "flu shot," which is an inactivated vaccine (containing killed flu virus) that is given with a needle, usually in the arm. The flu shot is approved for use in people older than 6 months, including healthy people and people with chronic medical conditions.

The second type is a nasal spray flu vaccine. This is a vaccine made with live, weakened flu viruses that do not cause the flu (sometimes called LAIV for "Live Attenuated Influenza Vaccine"). This vaccine is approved for use in healthy people 5 to 49 years of age who are not pregnant.

Many people believe they get sick (the flu) from the flu shot which is why some people are reluctant to get one. There are some possible side effects from receiving a flu shot but these do not mean that you have the flu. Side effects are effects from the

shot that are not intended but can be somewhat predictable. The viruses in the flu shot are killed (inactivated), so you cannot get the flu from a flu shot. Some minor side effects that could occur are: soreness; redness, or swelling where the shot was given; low grade fever; and aches. If these problems occur, they begin soon after the shot and usually last one to two days. Almost all people who get the influenza vaccine have no serious problems from it. However, on rare occasions, a vaccine can cause serious problems, such as severe allergic reactions.

The viruses in the nasal spray vaccine are weakened and will not cause severe symptoms associated with the influenza illness. In adults, side effects can include: runny nose, headache, sore throat or cough.

There are come common flu symptoms you should be aware of. The flu usually starts suddenly and may include these symptoms:

- Fever (usually high)
- Runny or stuffy nose
- Headache
- Body aches
- Fatigue (can be extreme)
- Cough
- Sore throat
- Diarrhea and vomiting can occur but is more common in children

Some of the complications caused by the flu include bacterial pneumonia, dehydration, and worsening of chronic medical conditions, such as congestive heart failure, asthma or diabetes.

Flu prevention

The single best way to prevent the flu is to get vaccinated each fall, but good health habits and antiviral medications are other measures that can help protect against the flu. We talked about the vaccines available to help prevent the flu. Good health habits are also an important way to help prevent the flu. By doing the following you can reduce you exposure to the flu virus.

- 1. Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.
- 2. Stay home when you are sick. If possible, stay home from work, school, and errands when you are sick. You will help prevent others from catching your illness.
- 3. Cover your mouth and nose. Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.
- 4. Wash your hands. Washing your hands often with soap and water will help protect you from getting and spreading germs. If you are not near water, use an alcohol based hand cleaner.
- 5. Avoid touching your eyes, nose or mouth. Germs are often spread when a person touches something that is contaminated with germ and then they touch his or her eyes, nose or mouth.

Three antiviral drugs (Symmetrel, Flumadine, Tamiflu) are approved for use in preventing the flu. These are prescription medications and a doctor needs to be consulted before they are used.

Emergency situations

There are some emergency warning signs that require urgent medical attention.

- A fever that doesn't go away within a couple of days. Most adults with the flu
 will have a fever that can be as high as 104 degrees. If a fever reducer like Tylenol
 doesn't bring the fever down, call your doctor
- Chest pain or you feel short of breath. Influenza can bring out symptoms of other underlying conditions such as heart disease. If you have difficulty breathing or chest pain call your doctor immediately or go to an emergency room.
- Dehydration. If you are vomiting or perspiring or not drinking fluids, it is easy to become dehydrated. Dehydration can be serious in older people. A sign of dehydration can be dark colored urine.
- A cough that won't go away. Pneumonia is a frequent complication of the flu, and can be deadly in older people. If you have a persistent cough, pain with breathing, or sputum that is any color but white you may have a bacterial lung infection on top of the flu. You may need an antibiotic.

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