

Protecting Against Influenza

Protection is worth a shot. The best way to prevent the flu is by getting vaccinated each year.

Each year, new vaccines are created to protect and prevent influenza A and B strains expected to cause infections during upcoming winter months.

- The vaccine can prevent symptoms of the flu, and is 70%–90% effective in healthy adults 65 years and younger.¹
- The vaccine also provides higher protection against developing pneumonia, hospitalization and death in the elderly.^{2,3}
- The vaccine is effective in preventing influenza related complications and deaths.³

Repeat flu vaccination is required every season

Everyone, 6 months and older, should be vaccinated against influenza to prevent infection and potentially serious complications.

- The vaccine is typically delivered through a needle, 5/8 inch to 1 1/2 inch in length, in the upper arm. An Intradermal (less painful) vaccine is also available for the 2015-2016 season.
- There are two types of flu vaccine. One flu vaccine is a purified inactive viral vaccine and is thoroughly tested for purity and safety. The other type of vaccine is a live attenuated Influenza vaccine which is a nasal spray vaccine for persons 2-49 years of age.

- For individuals allergic to Egg products a newer vaccine derived from non-egg products is available this season.
- Each vaccine works by stimulating the body's ability to produce antibodies to the virus.
- Flu immunity generally develops about two weeks after the shot is received.
- Serious problems from the flu vaccine are very rare.

The flu vaccine is safe, inexpensive and effective.

References:

1. <http://www.cdc.gov/flu/professionals/vaccination/effectivenessqa.htm>

2. Arden NH, Patricia PA, Kendal AP, "Experiences in the use and efficacy of inactivated influenza vaccine in nursing homes". In Kendal AP, Patriarca PA, eds. Options for the control of influenza., New York, NY: Alan R. Liss, Inc., 155–68, 1986.

3. Patriarca PA, et al., "Efficacy of influenza vaccine in nursing homes: reduction in illness and complications during an influenza A (H3N2) epidemic". JAMA 253:1136–9, 1985

I. Who should be vaccinated?

Everyone 6 months and older should be vaccinated against the flu. Some groups of people are more susceptible to complications from the flu resulting in hospitalizations and occasionally in death.

The Advisory Committee on Immunization Practices (ACIP) recommends vaccination for all persons ≥ 6 months of age and especially for the following groups of people who are at increased risk for complications from influenza.

A. People at Higher Risk from Flu

- Children younger than 5, but especially children younger than 2 years old
- Adults 65 years of age and older
- Pregnant women
- American Indians and Alaskan Natives viruses that are causing illness
- People who have medical conditions

B. People at higher risks who have medical conditions:

- Asthma
- Neurological and neurodevelopmental conditions [including disorders of the brain, spinal cord, peripheral nerve, and muscle such as cerebral palsy, epilepsy (seizure disorders), stroke, intellectual disability (mental retardation), moderate to severe developmental delay, muscular dystrophy, or spinal cord injury].
- Chronic lung disease (such as chronic obstructive pulmonary disease [COPD] and cystic fibrosis)
- Heart disease (such as congenital heart disease, congestive heart failure and coronary artery disease)
- Blood disorders (such as sickle cell disease)
- Endocrine disorders (such as diabetes mellitus)
- Kidney disorders
- Liver disorders
- Metabolic disorders (such as inherited metabolic disorders and mitochondrial disorders)

- Weakened immune system due to disease or medication (such as people with HIV or AIDS, or cancer, or those on chronic steroids)

- People younger than 19 years of age who are receiving long-term aspirin therapy
- People who are morbidly obese (Body Mass Index, or BMI, of 40 or greater)

For more information, visit:

<http://www.cdc.gov/flu/about/disease/symptoms.htm>

C. Other people for whom vaccination is especially important:

- People who live in nursing homes and other long-term care facilities
- People who live with or care for those at high risk for complications from flu, including:
 - Health care workers
 - Household contacts of persons at high risk for complications from the flu
 - Household contacts and caregivers of children younger than 5 years of age with particular emphasis on vaccinating contacts of children younger than 6 months of age (children younger than 6 months are at highest risk of flu-related complications but are too young to get vaccinated)

D. Health Care Workers

It is especially important that health care workers who are in contact with patients be vaccinated since they may care for people who are at high risk for developing influenza-related complications. Healthy People 2020 established a goal to achieve 90% vaccination coverage for all health care professionals.

- The CDC and ACIP recommend that all healthcare workers should receive an annual flu vaccine

- Health care workers protect the health of patients, their own health and that of their families when they get vaccinated.
- Studies have shown that higher vaccination rates among health care workers can reduce influenza illnesses and even deaths in settings like nursing homes
- Influenza outbreaks in hospitals and long-term facilities have been attributed to low vaccination rates among health care workers
- High rates of vaccination among nurses and health care workers have been linked to improved patient outcomes and reduced absenteeism and influenza infection among staff

Source:

<http://www.cdc.gov/flu/healthcareworkers.htm>

Health care workers who should be vaccinated include:

- Physicians, nurses, other workers in hospital and outpatient-care setting
- Medical emergency-response workers such as paramedics and emergency medical technicians.
- Other employees of nursing homes and long-term facilities who have contact with patients or residents
- Students of health and allied professions who will have contact with patients

Source:

<http://www.cdc.gov/flu/professionals/infectioncontrol/healthcaresettings.htm>

II. Which vaccine should you give?

There are two types of flu vaccines but many variations for 2015-16; Trivalent, Quadrivalent and Hi Dose:

The “flu shot”—an inactivated vaccine (with killed virus) is given by needle injection usually in the arm muscle. The vaccine protects against three to four influenza viruses. The 2015–2016 flu vaccine will protect against Type A & B viruses.

- The flu shot is approved for use in people 6 months of age or older, including healthy people and people with chronic medical conditions.
- The nasal spray vaccine (with live attenuated Influenza Vaccine or LAIV)—a vaccine with weakened live viruses, is sprayed into the nostrils.
- The nasal spray vaccine (LAIV) is approved for use in healthy people 2 to 49 years of age.
- Health care workers who are not pregnant may receive LAIV, including those who care for newborns.
- The quadrivalent flu vaccine is designed to protect against four different flu viruses; two influenza A viruses and two influenza B viruses.

<http://www.cdc.gov/flu/protect/vaccine/quadrivalent.htm>

III. Who is not eligible for LAIV?

The nasal spray vaccine (LAIV) is not recommended for the following people:

- Children less than 2 years of age
- People 50 years of age and older
- People with a medical condition that places them at high risk for complications from influenza, including:
 - Those with chronic heart or lung disease such as asthma or reactive airways disease.

- People with diabetes or kidney failure.
- People with illnesses that weaken the immune system, or who take medications that can weaken the immune system.
- Children less than 5 years old with a history of recurrent wheezing.
- Children or adolescents receiving long term aspirin treatment.
- People with a history of Guillain-Barré Syndrome that occurred after receiving influenza vaccine.
- Pregnant women.
- People who have a severe allergy to chicken eggs or who are allergic to any of the nasal spray vaccine components.

IV. Who should not be vaccinated?

There are a few exceptions to ACIP's guidelines.

Generally, people with certain severe allergic reactions to eggs. The vaccine is made from highly purified egg-grown viruses that have been made non-infections (inactivated).

Individuals known to have severe anaphylactic hypersensitivity to eggs or to other components of the influenza vaccine might be at an increased risk for allergic reaction to influenza vaccine.

- Prophylactic treatment with antiviral agents is an option for preventing flu symptoms among such persons.
- Protocols have been established for safely administering influenza vaccine to persons with egg allergies

Person who have had a serious reaction to previous flu shots such as Guillain-Barre' Syndrome (a severe paralytic illness), which was thought to be caused by the flu vaccine, should seek antiviral treatment if vaccine is contraindicated.

Health care providers should file reports of any adverse reactions from a flu shot on the Vaccine Adverse Event Reporting System (VAERS) form or at: www.vaers.hhs.gov

For more information visit:

www.cdc.gov/flu or

http://www.immunize.org/vis/vis_flu_inactivate.asp

Practicing Good Hygiene

Encouraging the use of good hygiene techniques by all individuals can protect all against the flu.

Good hygiene requires:

Covering your mouth and nose when you sneeze or cough. This prevents an infected person from infecting others.

Covering your nose and mouth with a tissue when you cough or sneeze. Cough into your sleeve if there is no tissue and not into your hand. Throw the used tissues in the trash. This will limit the spread of the disease, since viruses and bacteria can live on surfaces outside of the body for at least two hours.¹

Reducing unnecessary touching of your eyes, nose, or mouth. Influenza viruses will not have a way to get into a person's body and therefore cannot make them sick.

Cleaning your hands often and washing with soap and water. People who wash their hands often are less likely to introduce viruses into their bodies. Infections will also be reduced by more than 50 percent.²

Using alcohol based hand sanitizers presents some advantages over hand washing with soap and water in the short term. Requires less time than hand washing; acts quickly to kill microorganisms on hands; are more accessible than sinks; reduces bacterial counts on hands; does not promote antimicrobial resistance; are less skin irritating than soap and water.

Hand sanitizers are not effective at removing organic matter (dirt, food, or other material) visible on hands.

References:

1. Centers for Disease Control and Prevention.

Visit:

<http://www.cdc.gov/flu/protect/stopgerms.htm>

2. The Soap and Detergent Association. *Cleaning 101 Website. Don't get caught dirty handed: support the clean hands campaign.*

<http://www.cleaninginstitute.org/cleanhandspublications/>

3. *Prevention and control of influenza.*

Recommendations of the

Advisory Committee on Immunization Practices (ACIP).MMWR

<http://www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/flu.html>

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a3.htm>

