

Flu Facts

The following information refers to seasonal flu in humans and is based on the current report of the Advisory Committee on Immunization Practices (ACIP) regarding inactivated seasonal flu vaccine (i.e., flu shots, not the intranasal vaccine) as referenced below, unless otherwise indicated. A link to the report and other information can be found at the CDC's website, www.cdc.gov/flu.¹

- **“The flu” generally refers to common seasonal flu, which is a contagious respiratory illness caused by influenza viruses.** The illness can be mild to severe and, at times, it can lead to death. The flu is best prevented by annual vaccination.²
- **Avian/Bird Flu, Swine Flu, etc:** Certain flu viruses are found in many different animals, including ducks, chickens, pigs (swine), whales, horses and seals. **Avian/Bird Flu refers to flu viruses that occur naturally among wild birds.** They are deadly to domestic fowl and, though unlikely, can be transmitted from birds to humans. **The Swine Flu refers to flu viruses that occur in pigs.** Pigs can be infected with both human and avian flu viruses in addition to swine flu viruses and can, therefore, transmit them to humans.
- **2009 H1N1 Flu is a new virus that is causing illness in people.** This virus was originally referred to as “swine flu” because lab tests showed that many of the genes in this new virus were very similar to flu viruses that normally occur in pigs in North America. But further study has shown that this new virus is very different from what normally circulates in North American pigs.
- **Pandemic flu refers to a global outbreak of serious illness in humans caused by flu viruses.** There is little natural immunity so disease is very contagious. **We are currently experiencing the 2009 H1N1 Flu pandemic.**²
- **Since the early 1900s, three pandemics (worldwide epidemics) have occurred, until now.**²
 - “The Spanish flu” occurred in 1918-19. There were approximately 500,000 deaths in the U.S. and 20 million worldwide.²
 - “The Asian flu” occurred in 1957-58. There were 70,000 deaths in the U.S.²
 - “The Hong-Kong flu” occurred in 1968-69. There were 34,000 deaths in the U.S.²
- **“The stomach flu” is an incorrect term sometimes used to describe gastrointestinal illnesses caused by other organisms.**²
- **The most common flu symptoms are fever, headache, muscle aches, fatigue, dry cough, sore throat, and a runny or stuffy nose.** Nausea, vomiting, and diarrhea are rare symptoms, more common in children.
- **On average, 5% to 20% of the population gets the flu, more than 200,000 people are hospitalized and approximately 36,000 people die in the U.S. each year due to flu-related complications.** This flu season could be worse because of the 2009 H1N1 Flu.²
- **You may be contagious with the flu for a day before you even know you are sick and up to five days after.** Children may be contagious for a longer period of time.²
- **The flu is spread in respiratory droplets from coughing and sneezing, usually from person to person, but sometimes by touching something with flu viruses on it and then touching your mouth or nose.**²
- **To improve your chances of avoiding the flu, you should get a flu shot every year.** Flu viruses are constantly changing to avoid being destroyed by our immune systems. When a significant abrupt change occurs and a different strain comes about, there might be little or no antibody protection against it and large numbers of people may become ill (epidemic). On the other hand, a new virus may be similar enough to one in the past, that antibodies built up against an old one might protect individuals against the new one.
- **What’s the difference between the plain old flu shots and the newer vaccine you inhale?** The vaccine you inhale is referred to as live attenuated influenza vaccine (LAIV). Basically, the viruses in this vaccine are still alive and able to replicate, though weakened, while the viruses in the plain old flu shot, or trivalent inactivated vaccine (TIV), are considered “killed” and unable to

do so. Both vaccines contain the same virus strains, which are grown in eggs. Currently, LAIV is only approved for healthy, non-pregnant people aged 2-49 years, while TIV is approved for most everyone older than 6 months. LAIV, licensed for use in the U.S. beginning in 2003, is produced by MedImmune, Inc. (Gaithersburg, Maryland; <http://www.medimmune.com>) and marketed under the name FluMist™. For more information, please review the current ACIP report or visit the MedImmune website.

- **The flu shot is recommended for anyone over the age of 6 months wishing to reduce his/her chances of getting the flu or transmitting it to others.** Use of both available vaccines (TIV and LAIV) is encouraged for eligible people every flu season, especially people in recommended target groups. During periods when the flu shot is in short supply, use of LAIV is especially encouraged when possible for those eligible (including health-care workers) because use of LAIV by them might considerably increase the availability of the flu shots for high-risk people. Those who have received the LAIV should avoid contact with severely immunosuppressed people for 7 days after vaccination. All children aged 6 months to 8 years who have never been previously vaccinated at any time with either LAIV or TIV should receive 2 doses of vaccine (the first dose as early as possible; LAIV: at least 6 weeks after initial dose; TIV: at least 4 weeks after initial dose). Also, children aged 6 months to 8 years who received only one dose in their first year of vaccination should receive 2 doses the following year.
- **The flu shot is particularly recommended for those who are at high risk for serious seasonal flu-related complications and those who live with or care for such persons. This includes:**
 - All children aged 6 months - 4 years
 - All persons aged 50 and older
 - Children and adolescents (aged 6 months - 18 years) who are receiving long-term aspirin therapy and therefore might be at risk for Reye syndrome after flu virus infection
 - Women who will be pregnant during the flu season
 - Persons of any age (above 6 months) who have chronic pulmonary (including asthma) or cardiovascular (except hypertension), renal, hepatic, neurological/neuromuscular, hematologic, or metabolic disorders (including diabetes mellitus) or immunosuppression (including immunosuppression caused by medications or by HIV)
 - Residents of nursing homes and other long-term care facilities
 - People who live with or care for those at high risk for flu-related complications, including:
 - Health care workers
 - Household contacts of persons at high risk for flu-related complications
 - Household contacts and out-of-home caregivers of children less than 6 months old since they are too young to be vaccinated

NOTE: If vaccine supply is limited, efforts should focus on health care workers, household contacts (including children) and caregivers of children through 4 years of age and adults aged 50 and older, and household contacts (including children) and caregivers of persons with medical conditions that put them at higher risk for severe complications from influenza.
- **Experts consider the flu shot safe for pregnant women and breastfeeding women and their infants.** Vaccination is recommended for women who will be pregnant during the flu season because of their increased risk for flu-related complications.
- **Some people should not be vaccinated.** Contraindications include having a severe allergy to eggs (since influenza used in vaccine is grown in hens' eggs) or any other vaccine component (i.e., thimerosal) and having a moderate or severe illness with fever at the time of vaccination (does not include minor illnesses). Also, the vaccine is not approved for children less than six months old. People allergic to eggs or other vaccine components [see package insert], those who have ever had an allergic reaction to a flu shot or similar vaccine, or developed Guillain-Barre syndrome (GBS) within six weeks of getting a flu shot in the past should talk to a doctor before being vaccinated. Possible sensitivity to dry natural latex rubber should be considered by those receiving certain brands of vaccine [again, see package insert]. Additionally, note that if your

immune system is compromised by illness at the time of vaccination, your body may not be able to respond to the vaccine as it should to build up antibodies for protection against the flu and you could become sicker or prolong your illness. LAIV should not be given to children under five years of age who have possible reactive airways disease, such as those who have had recurrent wheezing or a recent wheezing episode.

- **You cannot get the flu from the flu shot.** Flu shots are made from “killed” flu viruses. They cannot make you sick like live viruses but your body recognizes that they are present and attempts to build up the appropriate defenses to fight them off. It is important to NOTE, however, that many people do believe they have gotten the flu from the flu shot. Some explanations for this are as follows:
 1. **Some people, usually children and others who have not been exposed to the flu viruses before, may notice “mild” flu-like symptoms, such as fever, muscle pain and feelings of discomfort or weakness, after receiving a flu shot.** To some, the symptoms do not seem mild. They usually start soon after the shot and last one or two days. This is a rare but normal occurrence while the immune system is responding to the vaccine. It should not be confused with the flu or an allergic reaction.
 2. **Receiving a flu shot does not guarantee that you will avoid the flu.** However, as stated above, getting a flu shot will reduce your chances of getting sick with the flu. Remember, there are many different strains of the flu virus, as well as other similar illnesses. The flu vaccine covers only the three flu viruses that are chosen to be most likely to cause illness during the upcoming season, though it might also provide protection against other closely related or similar flu viruses.
 3. **Unfortunately, some people can remain unprotected despite getting a flu shot.** This is more likely to occur among people that have weakened immune systems. However, even among people with weakened immune systems, the flu vaccine can still help prevent flu-related complications.
- **The most common side effect of the flu shot is soreness at the injection site.** It can last up to two days but does not usually affect an individual’s ability to perform normal daily activities.
- **Less common side effects of the flu shot include allergic reactions and Guillain-Barré syndrome (GBS).** Life-threatening allergic reactions (which usually occur immediately) are very rare but possible in individuals allergic to any vaccine component. The 1976 Swine flu vaccine was associated with an increased number of GBS, a severe paralytic illness. Since then, the risk is estimated to be very low at one to two cases per million vaccinated—much less than the risk of getting the flu. However, individuals with a history of GBS should not be vaccinated without consulting a doctor because they have a much greater likelihood of subsequently developing the illness than individuals without such a history.
- **Forget flu season and the perfect timing of flu vaccination. This year, vaccination efforts should begin as soon as vaccine is available and continue through the flu season.** Flu season in the U.S. is usually November until April, with peak activity between late December and early March. Flu season in the southern hemisphere is usually April through September and, in the tropics, it is year-round.
- **Oseltamivir (Tamiflu) and zanamivir (Relenza) continue to be the recommended antivirals for treatment of influenza.** However, many flu virus strains are now proving to be resistant to oseltamivir. Recommendations for influenza diagnosis and antiviral use will be published later in 2009. Antivirals should be used as an adjunct to the vaccine to control and prevent the flu, not as a substitute for vaccination.
- **The flu shot can be given in conjunction with some other vaccines, including the novel H1N1 flu shot, at different injection sites.**
- **The 2009-2010 trivalent vaccine virus strains are as follows:** A/Brisbane/59/2007 (H1N1)-like, A/Brisbane/10/2007 (H3N2)-like, and B/Brisbane/60/2008-like antigens.