

2013-2014 Influenza Season: Are You Ready?

The flu is a contagious respiratory illness caused by influenza (ihn-floo-ehn-zuh) viruses that infect the nose, throat, and lungs. It can cause mild-to-severe illness and at times can lead to death. The best way to prevent the flu is by getting a flu vaccine each year.

Most experts believe that flu viruses spread mainly by droplets made when people with the flu cough, sneeze, or talk. These droplets can land in the mouths or noses of people who are nearby. Less often, individuals might get the flu by touching a surface or an object that has a flu virus on it and then touching their own mouth, eyes, or nose. You may be able to pass on the flu to someone else even before you know that you are sick. Healthy adults may be able to infect others beginning 1 day before symptoms develop and up to 5 to 7 days after becoming sick.

The flu is unpredictable, and how severe it is can vary widely from one season to the next.

How do I know if I'm at risk?

Some people are more likely to develop flu-related complications, including:

- Children aged < 5 years, especially children aged < 2 years
- Adults aged ≥ 65 years
- Pregnant women
- American Indians and Alaskan Natives

People with medical conditions such as asthma, diabetes, or chronic heart disease are also at an increased risk for developing flu-related complications, even if their conditions are well managed.

What are the symptoms?

People who have the flu often feel some or all of these signs and symptoms:

- Fever or feeling feverish/chills
- Cough

- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headache
- Fatigue
- Vomiting and diarrhea (more common in children than in adults)

How is it prevented?

The Centers for Disease Control and Prevention (CDC) recommends a yearly flu vaccine for everyone aged ≥ 6 months. About 2 weeks after vaccination, antibodies develop that protect against influenza virus infection, and the protection should last throughout the flu season. It is important to note that there is no clinical evidence to support that vaccine use and changes in autism frequency are related.

Flu vaccines are offered in many locations, including doctor's offices, clinics, health departments, pharmacies, and college health centers, as well as by many employers and schools.

There are 4 types of flu vaccines currently being produced for the U.S. market:

- The **regular seasonal flu shot** is an intramuscular (ihn-truh-muhs-kyo-lehr) shot, meaning it is injected into muscle (usually in the upper arm). It is approved for use in people aged ≥ 6 months, including healthy people, people with chronic medical conditions, and pregnant women.
- A **high-dose intramuscular vaccine** for people aged ≥ 65 years.
- An **intradermal (ihn-truh-duhr-muhl) vaccine**, meaning it is injected into the skin and is approved for people aged 18 to 64 years.
- A **nasal spray vaccine**—a vaccine made with live, weakened flu viruses that is given as a nasal spray (sometimes called LAIV for “live attenuated (uh-tehn-yoo-ayt-ehd) influenza vaccine”), approved for use in healthy people aged 2 to 49 years who are not pregnant.

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In addition to vaccination, you can take everyday preventive steps like staying away from sick people, covering your nose and mouth when you cough or sneeze, and washing your hands to reduce the spread of germs. If you are sick with the flu, stay home from work or school to prevent spreading the flu to others.

Who should get vaccinated?

Vaccination is especially important for:

- 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 the flu
- Household contacts and caregivers of children aged < 5 years (particularly contacts of children aged < 6 months)

Some people should not get a flu vaccine without talking to their doctor, including:

- People with a severe allergy to chicken eggs
- People who have had a severe reaction to a flu vaccine in the past
- Children aged < 6 months
- People who have a moderate-to-severe illness with a fever should wait until their symptoms lessen to get the vaccine
- People with a history of Guillain-Barré syndrome that occurred after receiving the flu vaccine and who are not at risk for severe illness from contracting the flu

How is it treated?

If you get the flu, antiviral drugs are a treatment option. Check with your doctor if you have a high-risk condition and you get flu symptoms. When used for treatment, antiviral drugs can lessen symptoms and shorten the time you are sick by 1 or 2 days. Antiviral drugs also can prevent serious flu-related complications, such as pneumonia.

Studies show that antiviral drugs for the flu work best when they are started within 2 days of getting sick. There are 2 antiviral drugs recommended by the CDC and approved by the Food and Drug

Administration (FDA) for flu treatment:

- **Oseltamivir.** This drug comes as a pill or liquid.
- **Zanamivir.** This drug comes as an inhaled powder and should not be used in anyone with breathing problems, such as asthma or chronic obstructive pulmonary disease.

Other treatment options include **over-the-counter drugs** for cold and flu that do not require a prescription. You can also use a **decongestant nasal spray** for as long as 3 to 5 days or a **saline spray** to loosen thick mucus for an extended period of time without significant adverse effects. Home treatment for the flu also includes getting plenty of rest, drinking lots of liquids, and avoiding alcohol and tobacco.

What is new for the 2013-2014 flu season?

The FDA has approved 2 new flu vaccines that can be given to patients who have an allergy to chicken eggs. The first is manufactured using cell culture technology (approved for use in people aged ≥ 18 years). The second is manufactured using special DNA technology (approved for use in people aged 18 to 49 years).

While there are many different flu viruses, most of the flu vaccines offered will be trivalent (3 components), and all nasal spray vaccines are expected to be quadrivalent (4 components). The trivalent flu vaccine is made from the following 3 viruses:

- An A/California/7/2009 (H1N1)pdm09-like virus;
- An A(H3N2) virus antigenically like the cell-propagated prototype virus A/Victoria/361/2011; and
- A B/Massachusetts/2/2012-like virus.

In addition to the 3 viruses contained in the trivalent vaccine, the quadrivalent vaccine will contain B/Brisbane/60/2008-like (B/Victoria lineage) virus.

For more seasonal flu information, visit <http://www.cdc.gov/flu>.

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