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Influenza Vaccination: A Shot in the Arm or FluMist?

Influenza is a very contagious respiratory disease caused by influenza viruses. It has no cure.

With influenza, you get a cough and runny nose with a high fever and severe body aches that usually starts getting better in a matter of days. Certain people are susceptible to more severe complications of the disease like pneumonia. Each year more than 200,000 people in the U.S. are hospitalized because of influenza. The people most at risk of serious disease are those over 64 years old, under 2 years old, and those with certain medical conditions. Because influenza spreads so easily, has no cure, and can cause serious illness, the best thing to do is try to stop it before it starts. Influenza vaccination is very important step to take in stopping this disease.

What kind of flu vaccines are there?

Two types of vaccine protect against the flu. The "flu shot" contains killed virus that is given with a needle, usually in the arm. A new, different kind of vaccine, called the nasal-spray flu vaccine, was approved in 2003. The nasal-spray flu vaccine, FluMist™, contains weakened live viruses, and is administered by nasal sprayer.

Both of these vaccines have certain things in common:

- They protect against multiple strains of the influenza virus. (The choice of which influenza strains to include is made each year.)
- They cause antibodies to develop in the body. These antibodies provide protection against influenza virus infection.
- For both, it takes about two weeks after vaccination for antibodies to develop in the body and provide protection. In the meantime, you are still at risk for getting the flu.

However, there are some very important differences between the flu shot and FluMist™. The most important difference is that FluMist™ can only be used in **healthy** people age 5-49 years old. Also, people getting FluMist™ vaccine should not be in regular contact with people who are more susceptible to influenza illness. The reason for both of these precautions is that in people with very poor immune systems, it is possible that even a weakened virus could cause illness. The immune system of a healthy person can easily handle the weakened live virus in FluMist™.

For a summary of the similarities and differences in the two vaccines, see the table at the end of this document.

What else should I know about influenza vaccines?

For most people, the side effect of the shot is a sore arm. Vaccination with a flu shot is not recommended for people who are allergic to eggs, are sick with a high fever, or have had a severe reaction to a flu vaccine in the past.

The new inhaled vaccine, FluMist™, is approved for use only in healthy people age 5-49 years old. It should not be used by people with some medical conditions, pregnant women, or others at risk for influenza-related complications (see Section 4 of the CDC Vaccine Information Sheet, <http://www.cdc.gov/nip/publications/VIS/vis-flulive.pdf>).

Health care providers with supplies of influenza vaccine will be able to answer specific questions about the influenza vaccines. Check with your health care provider to see if they have vaccine available.

	<u>Flu Shot</u>	<u>FluMist™</u>
What is this vaccine?	A vaccine that contains killed virus that is given with a needle, usually in the arm	A new flu vaccine that contains weakened live influenza viruses and is administered by nasal spray.
Who should use this vaccine?	<ul style="list-style-type: none"> • All adults over 64 years old • All children 6-23 months old • Adults & children over 6 months with heart disease, lung disease, (including asthma), kidney problems, diabetes or compromised immune systems (including HIV) • Children and teens on long-term aspirin therapy • Pregnant women who will be more than 3 month pregnant during flu season <p>Also should be used for people who may transmit influenza to high risk persons (health care workers, caregivers, household contacts or workers caring for children 0-6 months of age)</p>	<p>Healthy persons aged 5–49 years can receive.*</p> <p>*This may be restricted due to the shortage of injectable vaccine. We will post more information as soon as it is available.</p>
Who should NOT get this vaccine?	<p>People who are...</p> <ul style="list-style-type: none"> • Allergic to eggs, • Very sick with a high fever • Have had a severe reaction to a flu shot in the past 	<ul style="list-style-type: none"> • Anyone who is not healthy and age 5-49 years old. • Anyone who could expose high risk persons to the vaccine virus (health care workers, caregivers, household contacts or workers caring for young children or the elderly)
Should I talk with a doctor about which vaccine to use?	Yes	Yes
Can I get influenza from being vaccinated?	No. The virus used in this vaccine is a killed virus	Possibly. It is very unlikely that a health person age 5-49 would, but people who are more susceptible to flu could get influenza illness.

How well does the vaccine really work?

Flu Shot

The vaccine usually prevents influenza in 70%-90% of healthy persons under 65 years old. Among elderly persons and those with long-term (chronic) medical conditions, the flu shot is 30%-70% effective in preventing hospitalization for pneumonia and influenza.

Among elderly nursing home residents, the flu shot is most effective in preventing severe illness: in this setting, the shot can be 50%-60% effective in preventing hospitalization or pneumonia and 80% effective in preventing death from the flu.

<http://www.cdc.gov/flu/about/qa/flushot.htm>

Where can I find more information on this type of vaccine?

FluMist™

In one large study among children aged 15-85 months, the nasal-spray flu vaccine (LAIV) reduced the chance of influenza illness by 92% compared with placebo. In a study among adults, the participants were not specifically tested for influenza. However, the study found 19% fewer severe febrile respiratory tract illnesses, 24% fewer respiratory tract illnesses with fever, 23-27% fewer days of illness, 13-28% fewer lost work days, 15-41% fewer health care provider visits, and 43-47% less use of antibiotics compared with placebo.

<http://www.cdc.gov/flu/about/qa/nasalspray.htm>