TAKE A SHOT AT BEATING THE FLU

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PREMIER MEDICAL CARE
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TAKE A ***SHOT*** AT BEATING THE ***FLU***

Colds, bronchitis, pneumonia, and the flu are in full force as we leave summer and enter the autumn months. Coughing, sneezing, aching, fever, low energy, poor sleep, and misery can turn winter vacations and holidays into days in bed—the flu season has arrived! November is usually the arrival of flu season, which gains strength as families and friends gather around the table for Thanksgiving. Outbreaks usually start in December in time for the holidays, and then continue throughout the winter season.

The flu is an infection of the respiratory tract caused by the influenza virus. There are three types of this virus: A, B & C. The proteins that coat the flu virus change constantly. As a result, our immune systems do not recognize, and therefore cannot protect us from, new strains. These new strains circulate around the world every few years, causing widespread epidemics. This shifting nature of the virus, plus the danger of life-threatening complications from the infection, combines to make the flu a major public health threat. The swine flu is an influenza A virus that has evolved this past year. It is mainly in pigs.

How do you know if you have the flu and not just a cold?

A cold usually starts with a runny nose and a cough. It usually progresses slowly and can lead to a sore throat with a low grade (99°-100° F) temperature. The flu usually has an abrupt onset with a high fever (103°-104°F). Chills, malaise, muscle aches, and a pounding headache gradually change into a scratchy, sore throat and nasal congestion. In other words, catching the flu usually means a week of agony.

How does one catch the flu?

Unlike colds, which are most likely spread by direct contact, the influenza virus is mainly spread by airborne transmission. For example, when a person who has the flu sneezes, coughs, or even speaks, he fills the air with microscopic droplets filled with flu particles. These droplets are so small that they remain suspended in the air long enough to be inhaled by another person. Once the virus lands on the lining of the nose, throat, or airways, it invades the cells in its new host and starts reproducing itself rapidly.

Since the late 1940s the flu vaccine has been the best way to prevent influenza or lessen its severity. Because the virus undergoes constant change, new vaccines are developed yearly to protect the public from the most recently isolated viral strains. The vaccine can be given as an injection (ages 6 months and up) or through a nasal spray, "flu mist" (approved for ages 5-49 years old).

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For maximum protection for the duration of the flu season, the best time to receive the vaccine is from early October to mid-November. After the flu shot, antibodies take about two weeks to develop. Full protection usually last 4-6 months. If the annual vaccine is able to match the virus well, it usually offers 70-80% immunity in adults. For children older than 9 years old, one dose of vaccine is sufficient. Younger children receiving vaccine for the first time should be given two doses one month apart.

Who should get the Influenza Vaccine?

The Center for Disease Control and Prevention recommends that the following groups of people receive the vaccine:

Group 1: People who are at risk of a serious case of influenza or a complication from it.

- All people aged 65 or older
- Residents of long-term care facilities
- Anyone who has diabetes, asthma, anemia or a serious heart, lung, or kidney disease
- People who are less able to fight infections because of a congenital disease, HIV infection, or a weak immune system
- Children and teenagers ages 6 months to 18 years on long-term aspirin treatment, who, if they contract influenza, could develop a serious condition called Reye's syndrome.
- All children 6 months to 18 years old with chronic medical conditions.

Group 2: Anyone who has close contact with people at risk for contracting a serious case of influenza

- Health care workers (doctors, nurses, hospital and medical office staff)
- Nursing home or chronic care facility personnel

Group 3: Other Groups

- College students and soldiers (to prevent outbreaks)
- Women who will be pregnant during flu season or will have just delivered during the influenza season
- People traveling to the tropics at any time of the year or to countries south of the equator between April and September

Who should *Not* be Vaccinated?

1. People allergic to eggs should not receive the flu shot. The viral material used in flu vaccines is grown in eggs. As a result, anyone with a history of egg allergies (manifesting as hives, skin swelling or shortness of breath) should not be vaccinated.
2. People with acute illness with fever should not be vaccinated until they recover.

Side effects and adverse reactions to the flu shot

It is a common myth that a person can catch the flu from a flu shot. This is not true. The vaccine is actually made from an inactivated virus. However, because the vaccine itself can cause similar flu-like symptoms, such as headache, fatigue and muscle aches, it may be confused with the flu.

Treatment options

While antibiotics are ineffective against the flu virus, there are several treatment options if the symptoms are caught within the first 48 hours. Tamiflu, a capsule, and Relenza, an oral inhalation medication, are used to treat uncomplicated illnesses due to influenza virus. The treatment is for five days and can often decrease the severity and duration of the virus.

Supportive care with plenty of fluids and bed rest will allow your immune system to fight the virus. Tylenol or Motrin can be helpful to lower a temperature and decongestants will help to control many of the symptoms.

Final Thoughts

- Swine Flu
- Medicare pays 100% of the flu shot-even if you haven't met your yearly deductible. If you have a Medicare HMO, the flu shot is a fully covered benefit. There is no co-pay if this is the only service you receive at your doctor's office.
- Vaccines are one of the safest medicines available. The risks of getting the flu are much greater than the risks associated with getting the flu shot.
- Influenza vaccine must be administered yearly due to the appearance of new strains of virus that are not contained in previous vaccines.
- Influenza and pneumonia can claim the lives of approximately 80,000 Americans in a single year. More than 90% of these deaths occur among persons 65 years and older.

By: MICHAEL D, MILSTEIN, D.O., F.A.A.F.P., Board Certified, Family Practice is a member of the medical staff of Jupiter Medical Center and Palm Beach Gardens Medical Center

1. **What is the flu**
    - A respiratory infection caused by the influenza virus
    - There are three types of this virus-A, B, and C. The swine flu is Type A
    - The proteins that coat the flu virus change constantly
    - It is most common in the fall and winter months
    - Best time for the flu shot is October-December
    - It is highly contagious virus that usually enters the body through mucous membranes in the nose, mouth and eyes
    - It is not a bacteria and antibiotics are not effective in the treatment
    - The flu vaccine is usually given by a shot but a nasal spray is available also
2. **Facts**
    - In a typical flu season in the U.S. 50-60 million people catch the flu virus,
    - More than 200,000 people are hospitalized and 40,000-60,000 die from complications (pneumonia, respiratory failure , heart disease
    - The flu shot is usually 70-80% effective
    - After, the shot antibodies take two weeks to develop
    - Protection is usually for 4-6 months
3. Symptoms of the flu vs. a cold "see attached sheet"
4. Treatments for the flu virus
5. Myths about the flu
6. Who should get vaccinated and who shouldn't
7. Prevention against catching the flu
8. Immunity-boosting foods
9. Update on swine flu

What's the difference between the flu and a cold?

Signs & Symptoms	Flu	Cold
Onset	Sudden	Gradual
Fever	Characteristic, high (over 101°F);lasting 3 to 4 days	Rare
Cough	Dry;can become severe	Hacking
Headache	Prominent	Rare
Myalgia(muscle aches and pains)	Usual;often severe	Slight
Tiredness and weakness	Can last up to 2 to 3 weeks	Very mild
Extreme exhasution	Early and prominent	Never
Chest discomfort	Common	Mild to moderate
Stuffy nose	Sometimes	Common
Sneezing	Sometimes	Usual
Sore throat	Sometimes	Common

MYTHS ABOUT THE FLU

1. A flu shot can actually give you the flu virus
   - This cannot happen. While influenza vaccines can cause some side effects, such as fever and soreness at the injection site, one cannot develop an infection from the influenza virus as a result of being vaccinated.

2. You can catch the flu by getting chilled with weather changes
   - Although this is not a true statement, cold air causes constriction of blood vessels in the nose and prevents white blood cells from fighting infection.

3. Chicken soup is helpful in fighting the flu
   - Although chicken soup has no proven power to cure a virus, hot liquids can sooth a scratchy throat or cough.
   - The steam from warm fluids can also loosen nasal secretions and make you feel better.

4. Treating the flu with medication is never a good idea and will only prolong the illness
   - If flu like symptoms are diagnosed by a physician within the first 48 hours, then anti-viral medications, (such as Tamiflu and Relenza), can often shorten the course of the illness and make the symptoms milder.
   - Many over-the-counter medications are also effective in alleviating many miserable symptoms that the flu virus can cause.

HELPFUL HINTS TO AVOID CATCHING THE FLU

1. Take vitamin C-at least 1000mg a day has been shown to cut the duration of viral illnesses in half

2. Zinc is an excellent immune system booster-getting 100-120 mg per day has been shown to shorten the duration of the flu

3. Eating foods high in beta-carotene will help boost your immune system. Examples include carrots, broccoli, tomatoes and sweet potatoes. Cut down on sugar and eat more fruits and vegetables to improve your immune system

4. Exercise regularly and keep stress levels low

5. Don't smoke. Smoke dries out your nasal passages that protect your viruses

6. Get plenty of rest

7. Don't share any food, utensils, towels or pillow cases

8. Wash your hands before eating meals and frequently during the day. Scrub for at least 30 seconds with soap or hand sanitizer

9. Drink lots of water to keep your mucous membranes moist

10. Avoid alcohol-it will dehydrate you

11. Avoid caffeinated beverages such as coffee, tea and soda

12. Low fat yogurt will boost the immune system

13. If you have to fly, consider bringing a mask, (increase fluids on airplanes)

14. Use credit cards instead of passing money around to many hands

15. Carry your own pen for writing checks and signing credit cards

16. Use Clorox disinfecting wipes and bleach. The CDC recommends them and they are effective in preventing the spread of influenza A and the Swine flu. Wipe phones, door knobs, computers, etc.

17. Kissing is okay. Viruses are seldom spread by kissing and through saliva

18. Avoid ill people—especially if they do not cover their mouths or noses

19. Floss and brush your teeth-keeps viruses out of your mouth

20. Take vitamins and anti-oxidants to boost your resistance to fight viruses.

IMMUNITY ENEMIES

- Lack of Vitamins and Minerals
- Sugars
- Excessive Alcohol
- Smoking
- Lack of exercise and sleep
- Stress

IMMUNITY BOOSTING FOODS

- Protein found in lean meat, chicken and fish
- OMEGA-3 and 6 fatty acids found in nuts, seeds and oily fish
- Fiber found in grains, fruit and vegetables
- Foods high in minerals (zinc, selenium and calcium)
- Foods rich in vitamins A, B, C & E

FOODS TO BOOST YOUR IMMUNE SYSTEM

- Sweet Potato
- Carrots
- Yam
- Onions
- Red peppers/chili peppers
- Beets
- Tomato
- Pumpkin
- Avocado
- Asparagus
- Artichokes
- Brussel Sprouts
- Cauliflower
- Cabbage
- Kiwi fruit
- Pineapple
- Cantaloupe
- Papaya
- Apricot
- Guava
- Bananas
- Apples
- Lemons
- Ginger
- Garlic
- Salmon
- Duck
- Chicken
- Turkey
- Strawberry
- Blueberry
- Raspberry
- Hazelnut
- Walnut
- Cashew Nuts
- Almonds
- Oats
- Corn
- Soy beans
- Snow peas
- Tuna
- Shrimp

Table 1: Symptom Relief for Colds and Flu

Medication[1]	***Examples***	***Symptoms They Treat***	***Comments***
Analgesics		Headaches, minor aches and pains, fever	
Non-NSAID Acetaminophen	TYLENOL®, Children's TYLENOL®		Acetaminophen is not associated with gastrointestinal distress. It is the first choice analgesic for colds and flu.
NSAID Aspirin	Ascriptin®, BAYER®, Anacin®		Aspirin should not be used in children with cold or flu symptoms because it has been associated with the development of Reye syndrome in children suffering from the flu.
Ibuprofen	Motrin® IB, Advil®, Children's Motrin®, Children's Advil®		
Decongestants		Nasal congestion, sinus pressure and sinus congestion	People with high blood pressure, heart disease, diabetes, prostatic enlargement or thyroid disease, or those using a class of antidepressant known as MAOI (monoamine oxidase inhibitor) should consult their physician before taking these decongestants.
Oral Dosage Forms			
Pseudoephedrine	Sudafed®		
Nose drops/Nasal sprays			The body gets used to the effects of nasal sprays quickly. As a result, they become less effective with repeated use. They should be used sparingly for this reason.
Naphazoline	PRIVINE®		
Oxymetazoline	Afrin®		
Phenylephrine	Neo-Synephrine®		
Antihistamines		Runny nose, watery eyes	Some antihistamines may be effective as cough suppressants.
Brompheniramine	DIMETAPP®		The types of antihistamines listed in this table may cause drowsiness as a side effect. This side effect can be beneficial in cold and flu sufferers who are irritable and have trouble sleeping.
Chlorpheniramine	Chlor-Trimeton®		
Clemastine	Tavist-1®		
Diphenhydramine	Benadryl®		The newer, non-sedating antihistamines, which are available by prescription only, are not as effective in relieving cough.
Cough Suppressants		Cough	Dextromethorphan is the most widely used non-prescription cough suppressant and may be useful in relieving cough.
Dextromethorphan	PERTUSSIN DM®		
Expectorants		Cough	Guaifenesin is an ingredient in many multi-symptom cough and cold medications. There is little evidence of its usefulness.
Guaifenesin	ROBITUSSIN®		
Local Anesthetics		Sore throat	These medications are available as throat sprays and lozenges. In either form, these anesthetics provide short-term relief in the range of 5-10 minutes.
Benzocaine	Cepacol®		
Dyclonine	Sucrets®		Lozenges can pose a risk of choking and therefore should not be used by young children.
Phenol	Cepastat®		

FOLLOW DOSAGE INSTRUCTIONS ON ALL PRODUCT LABELS.

[1] This column lists many commonly used medications in each category, but is not exhaustive.

Colds and the Flu: Tips for Feeling Better *(continued)*

Should I call my doctor?

Most people do not need to see a doctor when they have a cold or the flu. But if you have any of the symptoms in the box below, call your doctor.

Emergency cold and flu symptoms

In children:

- Fever above 102°F (38.9°C) or a fever that lasts a long time
- A cold that lasts for more than 10 days
- Trouble breathing, fast breathing, or wheezing
- Bluish skin
- Not drinking enough fluids
- Earache or drainage from the ear
- Mental changes (such as trouble waking up, irritability, or seizures)
- Flu-like symptoms that get better but come back later with a fever and a worse cough
- Chronic medical problems (such as diabetes or heart disease) that get worse

In adults:

- Fever above 102°F (38.9°C) or a fever that lasts a long time
- A cold that lasts for more than 10 days
- Trouble breathing or shortness of breath
- Pain or pressure in the chest
- Fainting or feeling like you are about to faint
- Confusion
- Severe vomiting
- Very bad pain in your face or forehead
- Hoarseness, sore throat, or a cough that won't go away

Notes:

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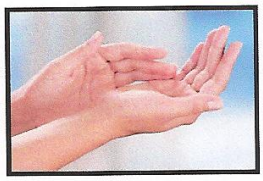
Clean Hands Save Lives!

- It is best to wash your hands with soap and warm water for 20 seconds.
- When water is not available, use alcohol-based products (sanitizers).
- Wash hands before preparing or eating food and after going to the bathroom.
- Keeping your hands clean helps you avoid getting sick.

When should you wash your hands?

- Before preparing or eating food
- After going to the bathroom
- After changing diapers or cleaning up a child who has gone to the bathroom
- Before and after caring for someone who is sick
- After handling uncooked foods, particularly raw meat, poultry, or fish
- After blowing your nose, coughing, or sneezing
- After handling an animal or animal waste
- After handling garbage
- Before and after treating a cut or wound
- After handling items contaminated by flood water or sewage
- When your hands are visible dirty



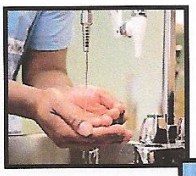
Using alcohol-based sanitizers

- Apply product to the palm of one hand.
- Rub hands together.
- Rub product over all surfaces of hands and fingers until hands are dry.

Note: the volume needed to reduce the number of germs varies by product.

Washing with soap and water

- Place your hands together under water (warm if possible).
- Rub your hands together for at least 20 seconds (with soap if possible).
- Wash your hands thoroughly, including wrists, palms, back of hands, and under the fingernails.
- Clean the dirt from under fingernails
- Rinse the soap from your hands.
- Dry your hands completely with a clean towel if possible (this helps remove the germs), However, if towels are not available it is okay to air dry your hands.
- Pat your skin rather than rubbing to avoid chapping and cracking.
- If you use a disposable towel, throw it in the trash.



Remember: *If soap and water are not available, use alcohol-based hand sanitizer.*

2009 H1N1 and Seasonal Flu: What To Do If You Get Sick

This flu season CDC expects the new 2009 H1N1 flu to cause illness, hospital stays, and deaths in the United States along with seasonal flu. This flyer has information about what to do if you get sick with the flu this season.

How do I know if I have the flu?

You may have the flu if you have some or all of these symptoms:

fever *

cough

sore throat

runny or stuffy nose

body aches

headache

chills

fatigue

sometimes diarrhea and vomiting

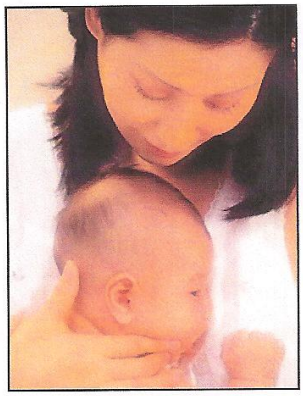
*Not everyone with flu will have a fever.

What should I do if I get sick?

If you get sick with flu-like symptoms this flu season, you should stay home and avoid contact with other people except to get medical care. Most people with 2009 H1N1 have had mild illness and have not needed medical care or antiviral drugs and the same is true of seasonal flu.

However, some people are more likely to get flu complications and they should talk to a health care provider about whether they need to be examined if they get flu symptoms this season. They are:

- Children younger than 5, but **especially** children younger than 2 years old
- People 65 and older
- Pregnant women
- People who have:
  - Cancer
  - Blood disorders (including sickle cell disease)
  - Chronic lung disease [including asthma or chronic obstructive pulmonary disease (COPD)]
  - Diabetes
  - Heart disease
  - Kidney disorders
  - Liver disorders
  - Neurological disorders (including nervous system, brain or spinal cord)
  - Neuromuscular disorders (including muscular dystrophy and multiple sclerosis)
  - Weakened immune systems (including people with AIDS)



Also, it's possible for healthy people to develop severe illness from the flu so anyone concerned about their illness should consult a health care provider.

There are emergency warning signs. Anyone who has them should get medical care right away.

What are the emergency warning signs?

In children

- Fast breathing or trouble breathing
- Bluish skin color
- Not drinking enough fluids
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough
- Fever with a rash

In adults

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting

Do I need to go the emergency room if I am only a little sick?

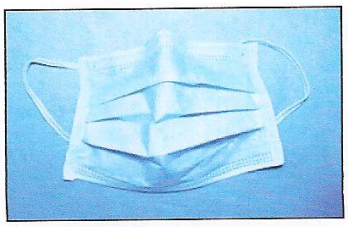
No. The emergency room should be used for people who are very sick. You should not go to the emergency room if you are only mildly ill. If you have the emergency warning signs of flu sickness, you should go to the emergency room. If you get sick with flu symptoms and are at high risk of flu complications or you are concerned about your illness, call your health care provider for advice. If you go to the emergency room and you are not sick with the flu, you may catch it from people who do have it

Are there medicines to treat 2009 H1N1?

Yes. There are drugs your doctor may prescribe for treating both seasonal and 2009 H1N1 called "antivirals." These drugs can make you better faster and may also prevent serious complications. This flu season, antiviral drugs are being used mainly to treat people who are very sick, such as people who need to be hospitalized, and to treat sick people who are more likely to get serious flu complications. Your health care provider will decide whether antiviral drugs are needed to treat your illness. Remember, most people with 2009 H1N1 have had mild illness and have not needed medical care or antiviral drugs and the same is true of seasonal flu.

How long should I stay home if I'm sick?

CDC recommends that you stay home for at least 24 hours after your fever is gone except to get medical care or for other things you have to do and no one else can do for you. (Your fever should be gone without the use of a fever-reducing medicine, such as Tylenol®.) You should stay home from work, school, travel, shopping, social events, and public gatherings.



What should I do while I'm sick?

Stay away from others as much as possible to keep from making them sick. If you must leave home, for example to get medical care, wear a facemask if you have one, or cover coughs and sneezes with a tissue. And wash your hands often to keep from spreading flu to others. CDC has information on "Taking Care of a Sick Person in Your Home" on its website.

For more information, visit www.cdc.gov or www.flu.gov or call 1-800-CDC-INFO.

2009 H1N1 INFLUENZA VACCINE

INACTIVATED (the "flu shot")

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

1 What is 2009 H1N1 influenza?

2009 H1N1 influenza (also called Swine Flu) is caused by a new strain of influenza virus. It has spread to many countries.

Like other flu viruses, 2009 H1N1 spreads from person to person through coughing, sneezing, and sometimes through touching objects contaminated with the virus.

Signs of 2009 H1N1 can include:

- Fatigue
- Fever
- Sore Throat
- Muscle Aches
- Chills
- Coughing
- Sneezing

Some people also have diarrhea and vomiting.

Most people feel better within a week. But some people get pneumonia or other serious illnesses. Some people have to be hospitalized and some die.

2 How is 2009 H1N1 different from regular (seasonal) flu?

Seasonal flu viruses change from year to year, but they are closely related to each other.

People who have had flu infections in the past usually have some immunity to seasonal flu viruses (their bodies have built up some ability to fight off the viruses).

The 2009 H1N1 flu is a new flu virus. It is very different from seasonal flu viruses.

Most people have little or no immunity to 2009 H1N1 flu (their bodies are not prepared to fight off the virus).

3 2009 H1N1 influenza vaccine

Vaccines are available to protect against 2009 H1N1 influenza.

- These vaccines are made just like seasonal flu vaccines.
- They are expected to be as safe and effective as seasonal flu vaccines.
- They will not prevent "influenza-like" illnesses caused by other viruses.
- They will not prevent seasonal flu. ***You should also get seasonal influenza vaccine, if you want to be protected against seasonal flu.***

Inactivated vaccine (vaccine that has killed virus in it) is injected into the muscle, like the annual flu shot. **This sheet describes the inactivated vaccine.**

A **live, intranasal** vaccine (the nasal spray vaccine) is also available. It is described in a separate sheet.

Some inactivated 2009 H1N1 vaccine contains a preservative called thimerosal to keep it free from germs. Some people have suggested that thimerosal might be related to autism. In 2004 a group of experts at the Institute of Medicine reviewed many studies looking into this theory, and found no association between thimerosal and autism. Additional studies since then reached the same conclusion.

4 Who should get 2009 H1N1 influenza vaccine and when?

WHO

Groups recommended to receive 2009 H1N1 vaccine first are:

- Pregnant women
- People who live with or care for infants younger than 6 months of age
- Health care and emergency medical personnel
- Anyone from 6 months through 24 years of age
- Anyone from 25 through 64 years of age with certain chronic medical conditions or a weakened immune system

As more vaccine becomes available, these groups should also be vaccinated:

- Healthy 25 through 64 year olds
- Adults 65 years and older

The Federal government is providing this vaccine for receipt on a voluntary basis. However, state law or employers may require vaccination for certain persons.

WHEN

Get vaccinated as soon as the vaccine is available.

Children through 9 years of age should get **two doses** of vaccine, about a month apart. Older children and adults need only one dose.

5 Some people should not get the vaccine or should wait

You should not get 2009 H1N1 flu vaccine if you have a **severe (life-threatening) allergy** to **eggs**, or to **any other substance in the vaccine**. *Tell the person giving you the vaccine if you have any severe allergies.*

Also tell them if you have ever had:

- a life-threatening allergic reaction after a dose of seasonal flu vaccine,
- Guillain Barré Syndrome (a severe paralytic illness also called GBS).

These may not be reasons to avoid the vaccine, but the medical staff can help you decide.

If you are moderately or severely ill, you might be advised to wait until you recover before getting the vaccine. If you have a mild cold or other illness, there is usually no need to wait.

Pregnant or breastfeeding women can get inactivated 2009 H1N1 flu vaccine.

Inactivated 2009 H1N1 vaccine may be given at the same time as other vaccines, including seasonal influenza vaccine.

6 What are the risks from 2009 H1N1 influenza vaccine?

A vaccine, like any medicine, could cause a serious problem, such as a severe allergic reaction. But the risk of any vaccine causing serious harm, or death, is extremely small.

The virus in inactivated 2009 H1N1 vaccine has been killed, so you cannot get influenza from the vaccine.

The risks from inactivated 2009 H1N1 vaccine are similar to those from seasonal inactivated flu vaccine:

Mild problems:

- soreness, redness, tenderness, or swelling where the shot was given • fainting (mainly adolescents)
- headache, muscle aches • fever • nausea

If these problems occur, they usually begin soon after the shot and last 1-2 days.

Severe problems:

- Life-threatening allergic reactions to vaccines are very rare. If they do occur, it is usually within a few minutes to a few hours after the shot.
- In 1976, an earlier type of swine flu vaccine was associated with cases of Guillain-Barré Syndrome (GBS). Since then, flu vaccines have not been clearly linked to GBS.

7 What if there is a severe reaction?

What should I look for?

Any unusual condition, such as a high fever or behavior changes. Signs of a severe allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** the doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS website at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

8 Vaccine injury compensation

If you or your child has a reaction to the vaccine, your ability to sue is limited by law.

However, a federal program has been created to help pay for the medical care and other specific expenses of certain persons who have a serious reaction to this vaccine. For more information about this program, call **1-888-275-4772** or visit the program's website at: **www.hrsa.gov/countermeasurescomp/default.htm**.

9 How can I learn more?

- Ask your provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636 (1-800-CDC-INFO)** or
  - Visit CDC's website at **www.cdc.gov/h1n1flu** or **www.cdc.gov/flu**
- Visit the web at **www.flu.gov**

DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

Vaccine Information Statement
2009 H1N1 Inactivated Influenza Vaccine 10/2/09

2009 H1N1 INFLUENZA VACCINE

LIVE, ATTENUATED (the nasal spray vaccine)

WHAT YOU NEED TO KNOW

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis.

1 What is 2009 H1N1 influenza?

2009 H1N1 influenza (sometimes called Swine Flu) is caused by a new strain of influenza virus. It has spread to many countries.

Like other flu viruses, 2009 H1N1 spreads from person to person through coughing, sneezing, and sometimes through touching objects contaminated with the virus.

Signs of 2009 H1N1 can include:
- Fatigue
- Fever
- Sore Throat
- Muscle Aches
- Chills
- Coughing
- Sneezing

Some people also have diarrhea and vomiting.

Most people feel better within a week. But some people get pneumonia or other serious illnesses. Some people have to be hospitalized and some die.

2 How is 2009 H1N1 different from regular (seasonal) flu?

Seasonal flu viruses change from year to year, but they are closely related to each other.

People who have had flu infections in the past usually have some immunity to seasonal flu viruses (their bodies have built up some ability to fight off the viruses).

The 2009 H1N1 flu virus is a new virus strain. It is very different from seasonal flu viruses.

Most people have little or no immunity to 2009 H1N1 flu (their bodies are not prepared to fight off the virus).

3 2009 H1N1 influenza vaccine

Vaccines are available to protect against 2009 H1N1 influenza.

- These vaccines are made just like seasonal flu vaccines.
- They are expected to be as safe and effective as seasonal flu vaccines.
- They will not prevent "influenza-like" illnesses caused by other viruses.
- They will not prevent seasonal flu. ***You should also get seasonal influenza vaccine, if you want protection from seasonal flu.***

Live, attenuated intranasal vaccine (or **LAIV**) is sprayed into the nose. **This sheet describes the live, attenuated intranasal vaccine.**

An **inactivated** vaccine is also available, which is given as a shot. It is described in a separate sheet.

The 2009 H1N1 LAIV does not contain thimerosal or other preservatives. It is licensed for people from 2 through 49 years of age.

The vaccine virus is attenuated (weakened) so it will not cause illness.

4 Who should get 2009 H1N1 influenza vaccine and when?

WHO

LAIV is approved for people from 2 through 49 years of age who are not pregnant and do not have certain health conditions (see number 5 below). Groups recommended to receive 2009 H1N1 LAIV first are healthy people who:

- are from 2 through 24 years of age,
- are from 25 through 49 years of age and
  - live with or care for infants younger than 6 months of age, or
  - are health care or emergency medical personnel.

As more vaccine becomes available, other healthy 25 through 49 year olds should also be vaccinated.

> Note: While certain groups should not get LAIV – for example pregnant women, people with long-term health problems, and children from 6 months to 2 years of age – it is important that they be vaccinated . They should get the flu shot.

The Federal government is providing this vaccine for receipt on a voluntary basis. However, state law or employers may require vaccination for certain persons.

WHEN

Get vaccinated as soon as the vaccine is available.

Children through 9 years of age should get **two doses** of vaccine, about a month apart. Older children and adults need only one dose.

5 Some people should not get the vaccine or should wait

You should not get 2009 H1N1 LAIV if you have a **severe (life-threatening) allergy** to **eggs**, or to **any other substance in the vaccine**. *Tell the person giving you the vaccine if you have any severe allergies.*

2009 H1N1 LAIV should not be given to the following groups.

- children younger than 2 and adults 50 years and older
- pregnant women,
- anyone with a weakened immune system,
- anyone with a long-term health problem such as
  - heart disease
  - lung disease
  - asthma
  - kidney or liver disease
  - metabolic disease such as diabetes
  - anemia and other blood disorders
- children younger than 5 years with asthma or one or more episodes of wheezing during the past year,
- anyone with certain muscle or nerve disorders (such as cerebral palsy) that can lead to breathing or swallowing problems,
- anyone in close contact with a person with a *severely* weakened immune system (requiring care in a protected environment, such as a bone marrow transplant unit),
- children or adolescents on long-term aspirin treatment.

If you are moderately or severely ill, you might be advised to wait until you recover before getting the vaccine. If you have a mild cold or other illness, there is usually no need to wait.

Tell your doctor if you ever had:

- a life-threatening allergic reaction after a dose of seasonal flu vaccine,
- Guillain-Barré syndrome (a severe paralytic illness also called GBS).

These may not be reasons to avoid the vaccine, but the medical staff can help you decide.

2009 H1N1 LAIV may be given at the same time as most other vaccines. Tell your doctor if you got any other vaccines within the past month or plan to get any within the next month. H1N1 LAIV and seasonal LAIV should not be given together.

6 What are the risks from 2009 H1N1 LAIV?

A vaccine, like any medicine, could cause a serious problem, such as a severe allergic reaction. But the risk of any vaccine causing serious harm, or death, is extremely small.

The risks from 2009 H1N1 LAIV are expected to be similar to those from seasonal LAIV:

Mild problems:

Some children and adolescents 2-17 years of age have reported mild reactions, including:

- runny nose, nasal congestion or cough
- fever
- headache and muscle aches
- wheezing
- abdominal pain or occasional vomiting or diarrhea

Some adults 18-49 years of age have reported:

- runny nose or nasal congestion
- sore throat
- cough, chills, tiredness/weakness
- headache

Severe problems:

- Life-threatening allergic reactions to vaccines are very rare. If they do occur, it is usually within a few minutes to a few hours after the vaccination.
- In 1976, an earlier type of inactivated swine flu vaccine was associated with cases of Guillain-Barré Syndrome (GBS). LAIV has not been linked to GBS.

7 What if there is a severe reaction?

What should I look for?

Any unusual condition, such as a high fever or behavior changes. Signs of a severe allergic reaction can include difficulty breathing, hoarseness or wheezing, hives, paleness, weakness, a fast heart beat or dizziness.

What should I do?

- **Call** a doctor, or get the person to a doctor right away.
- **Tell** the doctor what happened, the date and time it happened, and when the vaccination was given.
- **Ask** your provider to report the reaction by filing a Vaccine Adverse Event Reporting System (VAERS) form. Or you can file this report through the VAERS website at **www.vaers.hhs.gov**, or by calling **1-800-822-7967**.

VAERS does not provide medical advice.

8 Vaccine injury compensation

If you or your child has a reaction to the vaccine, your ability to sue is limited by law.

However, a federal program has been created to help pay for the medical care and other specific expenses of certain persons who have a serious reaction to this vaccine. For more information about this program, call **1-888-275-4772** or visit the program's website at:

www.hrsa.gov/countermeasurescomp/default.htm.

9 How can I learn more?

- Ask your provider. They can give you the vaccine package insert or suggest other sources of information.
- Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
  - Call **1-800-232-4636 (1-800-CDC-INFO)** or
  - Visit CDC's website at **www.cdc.gov/h1n1flu** or **www.cdc.gov/flu**
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