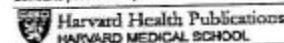


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Health Topics: Cold & Flu

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Top 10 Worries About the Swine Flu Vaccine

Move beyond the fears and get the facts.

By Howard LeWine, M.D.

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If you're wondering whether or not it's a good idea to get vaccinated for the H1N1 (swine) flu, you're not alone. So much misinformation has swirled around vaccines in general and flu shots in particular—and because the H1N1 virus is new, people are especially wary of getting vaccinated.

Here are the top 10 concerns that I hear about flu shots, and my response to these worries.

1. The flu shot always makes me sick.

The flu shot contains killed influenza virus which should trick your body into creating antibodies to the virus. The goal is to mimic the immunity you would get if you actually had the flu. Because there are no live flu particles, the flu shot cannot cause the flu. The flu nasal vaccine is different. It contains a live virus. The virus is modified so it cannot cause the flu. As the virus travels down the back of the throat toward the lungs, your body temperature is too hot for this modified virus to survive.

While the seasonal flu and H1N1 virus vaccinations cannot cause the flu, they can cause other mild side effects such as pain at the injection site, fatigue, and body ache. In fact, any vaccine—like any medication—can cause trouble for some people. For example, you could have an allergic reaction to the flu vaccine—especially if you have a known allergy to eggs. For this reason, persons with a known egg allergy are advised against receiving the flu vaccine.

2. This H1N1 flu vaccine is very different from older flu vaccines and hasn't been tested for safety.

In fact, the H1N1 flu vaccine is not different. It is made the same way flu vaccines are made every year. Experts predict what the most likely strains of flu will look like during the next flu season, so the virus in the seasonal flu vaccine varies from year to year. This was done early in 2009 for this year's seasonal flu vaccine. The manufacturers devised the seasonal flu vaccine according to the experts' recommendations.

Most of the seasonal flu vaccine had already been produced by the late spring when the new H1N1 flu virus emerged. No one predicted the sudden emergence of this particular flu strain, especially during warm weather. Because there was no time to add killed H1N1 virus particles to the seasonal vaccine, manufacturers needed to make a second flu vaccine containing these particles.

Manufacturers have followed exactly the same procedures to make H1N1 vaccine as they have used to make seasonal flu vaccines. So, apart from the type of virus in the vaccine, the recipe is the same as for regular flu vaccines. It is therefore just as safe as the seasonal flu vaccine already available and carries similar risks. Some people have been worried that manufacturers have included extra ingredients (adjuvants) to stretch the supply of H1N1 vaccine. The H1N1 vaccine available in the United States does not contain any adjuvants.

3. Manufacturers of the vaccine used shortcuts to get vaccine produced quickly.

The same companies that have been making flu vaccines are the ones producing the H1N1 swine flu vaccines. The process is identical. The vaccine has been tested on thousands of volunteers. The side effects have been the same as all other flu vaccines. The H1N1 vaccine did provide an immune reaction in most people within 7 to 10 days that predicts good protection against this virus. We won't know if the immunity seen in blood tests is enough until after the flu season has passed. But this is true with influenza in any given year. The U.S. Food and Drug Administration used the same measures to license this H1N1 flu vaccine as it has for past vaccines. No shortcuts.

4. This new H1N1 flu strain usually just causes mild symptoms and there is only a very small chance of getting very sick, so there really isn't a good reason to get the vaccine.

This is partially true, meaning that so far this H1N1 virus is not more dangerous, on average, than seasonal flu. However, it does seem more severe than regular flu in children and healthy young adults. Some very healthy people have become extremely ill and died from this infection. Because no one can predict whether that might happen to one of us or our children, the Centers for Disease Control and Prevention is urging everyone eligible for the vaccine to get it. In fact, people at highest risk of this new H1N1 virus are those under the age of 50. They have not been exposed to a flu strain that is similar to this one. So they have absolutely no natural immunity.

Typically flu viruses tend to be more contagious and to cause more severe disease in cold, dry air. The H1N1 virus began during spring and summer in the northern hemisphere. As winter approaches, some experts worry that the disease caused by the virus could become more severe. That may mean that the generally mild form of the illness we saw in the spring might be more significant this winter.

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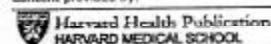
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5. The flu shot contains thimerosal, a dangerous mercury-based substance.

Most influenza shots do contain a substance called thimerosal. Thimerosal is needed to prevent vaccines from become contaminated with bacteria or other germs. It is used for multiple dose vials of vaccine. Thimerosal does contain a small amount of ethyl mercury. Studies have shown that, even in infants, exposure to much higher doses of mercury do not cause serious harm. The theory that thimerosal can cause autism has been thoroughly studied. There is no credible evidence that there is any link between them. For parents who remain concerned about thimerosal, thimerosal-free vaccine is scheduled to become available. There is no thimerosal in the nasal spray vaccine.

6. I rarely get colds and never get the flu, so I don't need a flu shot.

Some people exposed to the same viruses as the rest of us hardly ever get sick. Their ability to more quickly mount an effective immune response to viruses may have worked for years. But it is never foolproof. Just because someone has had good luck avoiding colds and the flu does not mean that they're immune from a severe, even life-threatening infection. In fact, some of the deaths related to the 2009 H1N1 flu have been the result of immune reaction to the virus that gets out of control.

7. I am pregnant and fear that the flu vaccine can hurt my baby.

This is a very normal concern. But pregnant women are at especially high risk for serious illness and death from any influenza virus, but especially the H1N1 virus. The safety of the H1N1 flu shot appears to be equal to the well established safety of previous flu shots. The swine flu shot, similar to the seasonal flu shot, is made from purified killed virus. There is no chance that you or your baby can get an infection from the vaccine.

Pregnant women should get the H1N1 flu shot and the seasonal flu shot for several reasons:

- They can protect infants who cannot receive vaccination. The mother can pass protective antibodies to her fetus.
- They may help protect the baby after it's born. If you do get the flu, you have a higher than average risk of getting pneumonia. Pneumonia lowers your blood oxygen level. This means your fetus may not receive the oxygen needed for normal development.
- Having the flu in pregnancy increases your risk of a miscarriage or giving birth too early.
- Women who have a fever during early pregnancy are more likely to deliver a baby with a neural tube defect, such as spina bifida.

8. I think I already had the flu this year.

There is no simple test to determine whether you actually had an infection with an influenza virus or had some other infection. The symptoms can be the same. It is better to be certain and get both the seasonal flu vaccine and the H1N1 swine flu vaccine. There is no added risk if you were previously infected with H1N1.

9. I heard that a similar swine flu shot in 1976 caused a deadly neurological disease.

The swine flu vaccine developed in 1976 was associated with a risk of getting a condition called Guillain-Barré syndrome. In this condition, multiple nerves become inflamed and damaged and thereby weaken muscles throughout the body. The risk in 1976 was 1 in 100,000. Since then, other flu vaccines containing particles from H1N1 viruses have not shown any higher risk of Guillain-Barré compared to seasonal flu vaccines. That risk is about 1 in 1 million. In fact, some studies indicate that the flu itself can lead to Guillain-Barré syndrome as often and perhaps more often, than the flu shot. So by not getting the flu vaccine, you raise your risk of getting the flu, which raises your risk of getting Guillain-Barré syndrome—the very thing you were worried about. Guillain-Barré can be mild or severe and is treatable. Today, the prognosis is quite good with treatment.

10. The flu shot hurts.

Not always. Speaking from personal experience, it aches for a few hours some of the time. I suggest lightly rubbing the area right after you get the shot in your arm. I do the same after my other vaccines. The tetanus booster usually hurts more—as do the miseries of the flu itself!

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