

The Doctor is in

Flu Fever!

BY DR. DAVID HILL

Every fall influenza makes us schizophrenic as parents. On one side we hear sensationalist reports of an avian flu pandemic just around the corner and somber recollections of the lethal outbreak of 1918. On the other side are urban legends about the influenza vaccine “weakening the immune system.” Now is a great time to take a deep breath and look at the facts.

What is the flu?

Influenza is a virus, akin to other upper respiratory viruses. You’ll hear about two types, A and B, as well as various subtypes. The subtypes are classified by the H and N glycoproteins on their surfaces as well as their geographic origin and the year they were first identified.

Who gets the flu?

Influenza infects five to twenty percent of the US population annually. It’s responsible for 200,000 hospitalizations and 36,000 deaths a year. Between fifteen and forty-two percent of school-aged children will be infected each year.

How would I know if my child got the flu?

The flu often presents as a cold, but with higher fevers, headaches, muscle aches, malaise, or worse vomiting and diarrhea. Children pose a special diagnostic challenge as they may have a harder time describing their symptoms. Symptoms usually last two to five days, but sometimes persist over a week. Exceptions are cough and fatigue, which may last for weeks.

If the flu is just another cold, then why all the fuss?

Unfortunately influenza can cause more serious complications in high-risk patients (infants, the elderly, the immunosuppressed). The most severe complication is bacterial pneumonia but croup, meningitis, and a paralytic condition called Guillain-Barré may also occur.

How is flu diagnosed?

Most primary care offices offer rapid diagnostic testing using a simple throat swab. It’s quick and easy but not the most sensitive or specific test. Other lab tests (culture, PCR) on nasal or lung secretions can confirm the diagnosis. Blood testing for antibodies may be done at the onset of illness and again ten to fourteen days later.

What good is the vaccine, and why do we have to get it every year?

The influenza virus is constantly evolving, sometimes gradually (drift), sometimes dramatically (shift). Each fall’s vaccine is based on the strains found on global surveillance the prior spring. Most years the

vaccine is 70 to 90% effective against flu infection. Vaccinated people who do get infected usually have much milder symptoms. They’re also less likely to pass the flu to vulnerable contacts. Surveillance this year suggests the vaccine will be highly effective.

But I got vaccinated last year and I still got sick!

While the flu and colds have many of the same symptoms, there are thousands of other cold viruses unrelated to influenza. The flu vaccine ONLY protects against influenza.

What are the different types of vaccines?

The “flu shot” or trivalent inactivated vaccine (TIV) is made of various components of the influenza virus. It can’t cause the flu any more than a muffler and gearbox can drive to the grocery store. There are three brands of TIV: Fluzone for children 6 to 36 months, Fluvirin for children ages four and up, and Fluarix for adults only.

The live attenuated influenza vaccine (LAIV, brand-name Flumist) is a whole virus, alive but weakened; it may cause some mild symptoms of flu. It’s given as a nasal spray and is approved for healthy, non-pregnant people aged five to forty-nine. LAIV is not recommended if you have asthma, Guillain-Barré syndrome, live in close contact with the severely immunosuppressed, or are on long-term salicylate therapy.

Who should get the vaccine?

Ideally everyone over six months of age, but there have been shortages three of the last five years, so the CDC has a list of priority patients:

- Children ages 6 to 23 months.
- Household contacts of infants and children under age two.
- Adults age fifty or older.
- People with: lung or heart disease (asthma, congestive heart failure), immune disease (HIV), diabetes requiring any therapy in the last year, trouble handling secretions (strokes, seizures).
- Women who may be pregnant during the flu season.
- Any child or teen on long-term salicylate therapy.
- Residents of chronic care facilities (nursing home, rehab).
- Anyone likely to transmit flu to high-risk people (health care workers, caregivers, household contacts).

Having a cold or even a fever from a minor illness DOES NOT exclude you from getting vaccinated.

Who can’t get the vaccine?

Anyone with a serious egg allergy or a prior allergy to the vaccine. If you’ve had Guillain-Barré syndrome you should discuss the risks and benefits with your provider.

What if I live with someone who is

severely immuno-compromised?

You SHOULD get vaccinated, but with a trivalent inactivated vaccine, not Flumist.

Who needs two doses of vaccine?

Children under nine years old who are getting it FOR THE FIRST TIME need two doses. For the TIV, separate them by four weeks. For LAIV wait six weeks.

When should I get vaccinated?

Influenza peaks in January and February, and the vaccine takes about two weeks to work, so October and November are the ideal months. But since flu persists into early spring, even February is not too late to see some benefit. So far no vaccine shortages are predicted, but I’d get vaccinated as soon as possible.

What are the side effects of the vaccine?

The injected vaccine (TIV) may cause soreness and redness at the site for one to two days. Some younger children may have a low-grade fever, usually in first 24 hours.

Flumist (LAIV) can cause runny nose and congestion in around ten percent of users, usually lasting only a couple of days. Signs of a serious allergic reaction (rare) include wheezing, trouble breathing, pale skin, hives, or a fast heartbeat.

What about thimerosal?

Pediatric influenza vaccine is essentially thimerosal-free. Parents who remain anxious about thimerosal can go to www.cdc.gov/flu or www.cdc.gov/nip/vaccine/safe/concerns/thimerosal/faqsthimerosal.htm

How do you treat the flu?

Two oral medicines, amantadine and oseltamivir, are approved for children over one year old. Zanamivir is an inhaled medicine for use in children seven and older. Rimantidine, a fourth antiviral drug, is only approved for adults. Treatment must begin in the first forty-eight hours of infection to be effective. Antibiotics such as amoxicillin are useful in treating complications like pneumonia or ear infections, but they won’t do a thing against influenza.

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