Flu vaccine myth busters

Ben's runny nose, as depicted by Ben

The good news is that there was only a smattering of influenza (flu) cases across the United States over the summer. The great news is that according to the Centers for Disease Control, most of the detected strains are covered in this year's vaccine.

If you're still hesitant to vaccinate your family, let's talk frankly about some myths we sometimes hear about flu vaccines:

If my friend's child has flu symptoms, I'll just avoid their house to avoid catching the flu
False. According to the CDC , you are infectious the day before symptoms show up. So it is TOO LATE to avoid only those already sick.

My family never gets the flu so it's not necessary to get the vaccine.
False and dangerous. Saying "My child and I have never had the flu so we don't need the flu vaccine" is like saying, "I've

never a car accident so I won't wear my seat belt."

I got the flu shot last year and then I got sick. So the flu shot must have made me sick.
Our condolences. True, you were sick. **But this statement is False,** because the illness was not caused by the flu vaccine. Vaccines are not real germs, so you can't "get" a disease from the vaccine. But to your body, vaccine proteins appear very similar to real germs and your immune system will respond by making protection against the fake vaccine germ. When the real germ comes along, pow, your body already has the protection to fend off the real disease.

It is important to realize that the vaccine takes about 2 weeks to take effect in your body. So, if you were unlucky enough to be exposed to someone with the flu and then got the vaccine the next day, you still have a good chance of coming down with the flu. Unfortunately, the vaccine will not have had a chance to work yet.

Please know, however, there is a chance that for a couple days after a vaccine, you will ache and have a mild fever. The reason? Your immune system is simply revving up. But no, the flu vaccine does not give you the flu.

No one dies from the flu anymore, do they? Flu is just not that dangerous, so my child does not need a flu shot. I will just take my chances with flu.

False! A total of 107 influenza-associated pediatric deaths were reported for the 2016-2017 season. In past seasons up to 90% of children who died from flu did not receive a flu vaccine. So please, vaccinate yourself and your children.

The vaccine coverage is awful.
Not the case this year. On the other hand, even if coverage was spotty, look at it this way– if half of the flu out there was covered, that's a lot fewer people that won't give your

kid the flu.

Naline Lai, MD and Julie Kardos, MD

rev Oct. 10, 2017 see comments

Time out from summer for an important flu update

Time out from summer for a flu update

We interrupt your summer to bring you a Flu vaccine reminder and update.

Although flu (influenza) may be far from your minds, as we enter hot July, pediatricians are already ordering flu vaccines in preparation for Back to School. When the time comes, parents should add “schedule flu vaccine” to their back-to-school list as flu vaccines will arrive in offices as early as late August. Even immunizations given in August will last the entire winter season.

For fans of the nasal spray version of the flu vaccine—bad news. Turns out, data from the past 3 years shows the nasal spray is not nearly as effective as the injectable version. The American Academy of Pediatrics and the American Center for Immunization Practices both recommend giving only the injectable version of flu prevention for protection against influenza.

Nonetheless, for the inconvenience of a pinch, the vaccine is still worthwhile. A total of 77 children died from flu in the US during the 2015-2016 flu season and many more children were hospitalized with flu related complications such as pneumonia and dehydration. Flu is highly contagious and spreads rapidly within households and schools, including daycare centers. People are contagious from flu one day prior to showing any symptoms of flu.

While most people who become sick with the flu survive, they will tell you it is a tough week. In addition to having a high fever that can last 5-7 days, a hacking cough, and runny nose, those stricken will tell you that every part of their bodies hurt. Even the movement of their eyes can hurt. In addition to the physical effects, our high school and college level patients are particularly distraught about the amount of schoolwork they miss while recovering from the flu.

An ounce of prevention is worth a pound of cure, which is why the flu vaccine is so terrific. There is no “cure” for the flu- you have to let your body fight it out. Unfortunately antiviral medications such as oseltamivir at best shorten the

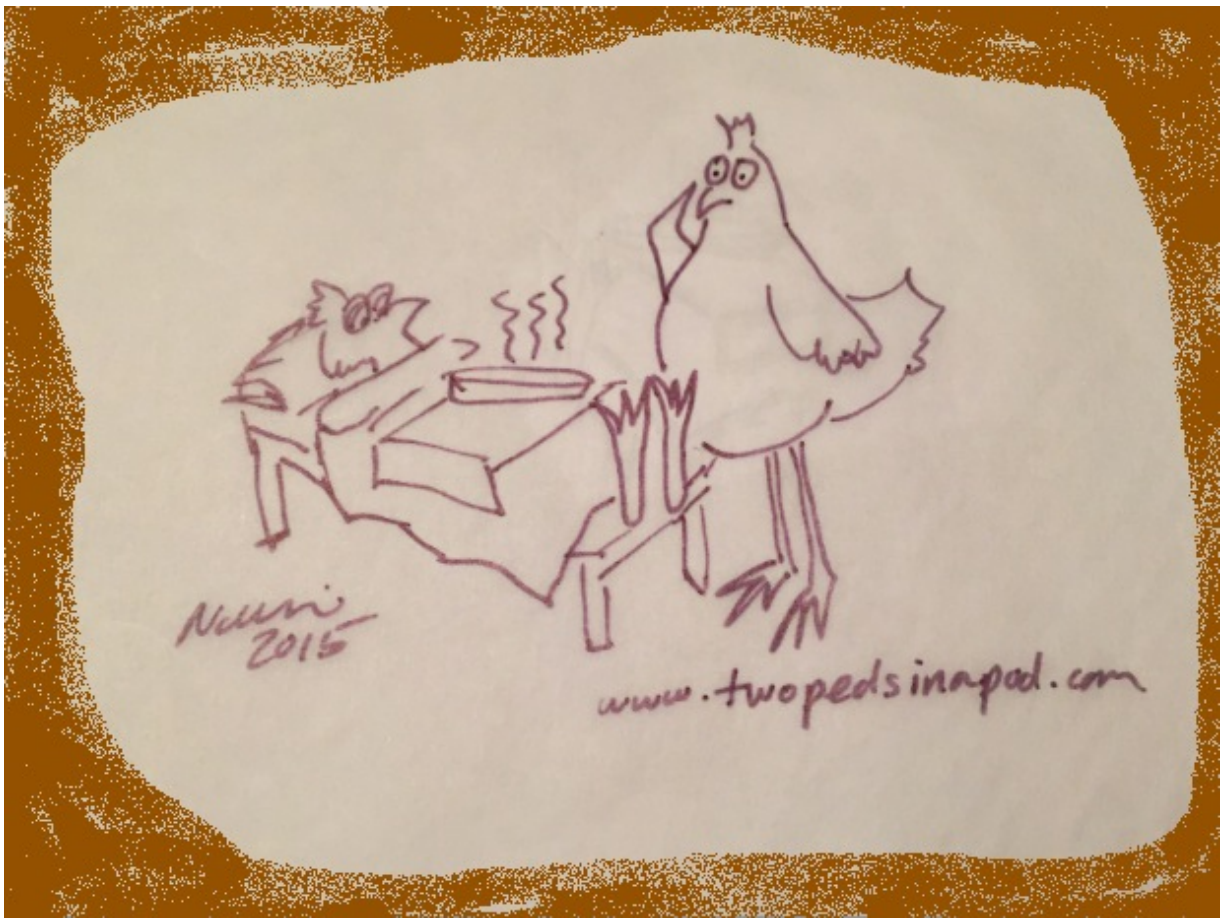
duration of flu symptoms by about one day. Flu vaccines work by jump starting your body's natural immune system to produce disease fighting cells called antibodies. Vaccines are given yearly because flu virus strains often morph between flu seasons.

For more Two Peds In a Pod posts about flu and about vaccines in general: How to tell the difference between the common cold and the flu, Fact or Fiction: a flu vaccine quiz, Getting back to basics: how vaccines work.

OK, now back to your summer fun!

Julie Kardos, MD and Naline Lai, MD

How to tell the difference between the Flu and the Common Cold



"Now what kind of soup did the doctor recommend? Was that tomato soup? Mushroom barley?"

Now that we are in the middle of the 2015 flu season, we have parents asking us every day how they can tell if their child has the flu or just a common cold. Here's how:

Colds, even really yucky ones, start out gradually. Think back to your last cold: first your throat felt scratchy or sore, then the next day your nose got stuffy or then started running profusely, then you developed a cough. Sometimes during a cold you get a fever for a few days. Sometimes you get hoarse and lose your voice. Kids are the same way. In addition, they often feel tired because of interrupted sleep from coughing or nasal congestion. This tiredness leads to some extra crankiness.

Usually kids still feel well enough to play and attend school with colds, as long as their temperatures stay below 101°F and they are well hydrated and breathing without any difficulty. The average length of a cold is 7-10 days although sometimes it takes two weeks or more

for all coughing and nasal congestion to resolve.

Important news flash about mucus: the mucus from a cold can be thick, thin, clear, yellow, green, or white, and can change from one to the other, all in the same cold. The color of mucus does NOT tell you if your child needs an antibiotic and will not help you differentiate between a cold and the flu.

The flu, caused by influenza virus, comes on suddenly and makes you feel as if you've been hit by a truck. Flu always causes fever of 101°F or higher and some respiratory symptoms such as runny nose, cough, or sore throat (many times, all three). Children, more often than adults, sometimes will vomit and have diarrhea along with their respiratory symptoms. Usually the flu causes body aches, headaches, and often the sensation of your eyes burning. The fever usually lasts 5-7 days. All symptoms come on at once; there is nothing gradual about coming down with the flu.

So, if your child has a runny nose and cough, but is drinking well, playing well, sleeping well and does not have a fever and the symptoms have been around for a few days, the illness is unlikely to "turn into the flu."

Remember: colds = gradual and annoying. Flu = sudden and miserable.

Fortunately, a vaccine against the flu can prevent the misery of the flu. In addition, vaccines against influenza save lives by preventing flu-related complications that can be fatal such as pneumonia, encephalitis (brain infection), and severe dehydration. Even in a year, like this one, when the flu vaccine is not well matched to the currently circulating strains, its still worth getting the vaccine.

Be sure to read our guest article on ways to prevent colds and flu and our thoughts on over the counter cold medicines. Now excuse us while we go out to buy yummy-smelling hand soap to entice our kids to wash germs off their hands. After that you'll find us cooking up a pot of good old-fashioned chicken soup, just in case…

Julie Kardos, MD and Naline Lai, MD
revised from our Sept 2009 post

Flu update 2014-2015- We may be in for a rough winter

Ben's runny nose, as depicted by Ben

Because we couldn't have said it better ourselves, we have reprinted (with permission) our pediatrician colleague Dr. Roy Benaroch's recent flu update from his blog The Pediatric Insider.

Some bad news about flu this year
We could be in for a rough influenza winter.

First, data just released from the CDC shows that a lot of the flu circulating in the USA isn't a good match for the strains in this year's flu vaccines. About 82% of flu since autumn is a type A H3N2, one that historically has been associated with more-severe illness. Of those, only about half are closely related to the A/Texas/50/2012 strain that was chosen in February to be included in the vaccine. Unfortunately, current

methods of vaccine production take a long time, and manufacturers have to commit early—months ahead of time—to what will be included in the vaccines. In February, when the World Health Organization made their recommendations for the Northern Hemisphere 2014-2015 flu vaccine, they chose the H3N2 that was then in circulation. Since then, it's "drifted", or changed, to a related but non-identical type.

What this means is that the current vaccine is well-matched to only about 40% of circulating flu. The vaccine will probably offer some protection against the other 60%— illness will be milder and shorter—but a lot of people who got their flu vaccines are still going to get the flu, and spread the flu. Now, some protection is still better than none, so I'd still go and get that flu vaccine now if you haven't gotten it already. An imperfect (or, honestly, far-less-than-perfect) flu vaccine is better than none. But it isn't looking good this year.

And it gets worse. It's becoming increasingly clear that Tamiflu, the anti-viral medication we rely on to help treat influenza, doesn't work very well. As summarized by the Cochrane Collaboration earlier this year, studies show that Tamiflu is only modestly effective in reducing the length of influenza illness, and may be only slightly effective at reducing complications. If it does work for treatment of flu, it works best when started very early in the course of the illness. The FDA labeling calls for it to be started within 48 hours, but honestly it seems to barely work if started that late. Better to get it started within 24, or even better, 12 or 6 or 2 hours.

In practice, Tamiflu really doesn't seem to do much of anything for most of the flu patients seen in hospitals and doctor's offices, because we usually see patients too late. It does have a role in helping family members at risk for flu. They can start it immediately, at the first symptoms, and will probably get more benefit.

Tamiflu can also be used as a prophylactic, or preventive, agent in people exposed to flu with no symptoms, though again, the benefits are modest at best. Crunching the numbers, we probably have to treat about 33 people on average for just one person to benefit from prophylaxis. That's not very good, especially considering that all 33 people will have to pay for it and risk the side effects.
And Tamiflu does have some significant side effects. Nausea and vomiting are quite common, but the scarier reactions are depression, hallucinations, and psychosis. Neuropsychiatric side effects are most common in people of Japanese ancestry.

So: the flu vaccine, this year, will probably offer only modest benefits. And Tamiflu really has very limited usefulness. It looks like we'd better prepare for a rough winter, and keep in mind some of the old-fashioned ways to keep from getting the flu:
• Stay away from sick people.
• If you're sick, stay home.
• Keep your mucus to yourself—sneeze into your elbow, or better yet into a tissue. And then wash your hands.
• Don't touch your own face. Flu virus on your hands doesn't make you sick until you help it get into your body by touching your eyes, nose, or mouth.
• Wash or sanitize your hands frequently, and especially before touching your face or eating.

In practice near Atlanta, Georgia, Dr. Roy Benaroch is an assistant clinical professor of pediatrics at Emory University, a father of three, and the author of The Guide to Getting the Best Health Care for your Child and Solving Health and Behavioral Problems from Birth through Preschool. Most recently he is the Narrator of the Great Courses Series: Medical School for Everyone. We are fans of his blog The Pediatric Insider

Enterovirus D-68 put into perspective

No doubt, there has been an uptick in respiratory illness in our area, but the news media is causing panic specifically over one of them: enterovirus D-68.

The name “enterovirus” does not imply “deadly.” Many of you are well familiar with hand-foot-mouth disease, aka “Coxsackie virus.” Guess what? This extremely common, benign but annoying virus is also an enterovirus!

Let’s put into perspective how this “new” respiratory virus compares with an “old” well-known respiratory virus, influenza (The Flu). Remember that both flu and enterovirus D-68 are tracked by REPORTED cases. Most of the time doctors do not test children with mild disease so most reported cases are hospitalized patients.

Enterovirus D-68, the numbers: From mid-August through the first week in October (peak enterovirus season)- 664 people are known to have been infected in the USA, most of whom are children. You can track these numbers on this Centers for Disease Control website.

Influenza, the numbers: Each year in the US, approximately 200,000 people (children and adults) are hospitalized from complications of the flu. This year's flu season in the northern hemisphere is just starting. Generally peak flu season is in the winter months. Large numbers of people contract the flu but they are not sick enough to be hospitalized- they suffer a week of fever, cough, sore throat and body aches at home but recover uneventfully. Up to 20% of the population are infected with flu each season.

Death from enterovirus D-68: 1 child. Four other children died who tested positive for this virus but it is unknown if the virus caused their deaths.
Death from influenza during the 2013-2014 flu season: 108 children

Symptoms of enterovirus D-68: range from mild cold symptoms to high fever and severe respiratory symptoms
Symptoms of flu: usually abrupt at the onset: fever, body aches, cough, and runny nose. Please see our prior post for more information.

Prevent enterovirus D-68: same as for all "cold" viruses- wash hands, sneeze/cough into elbow, not hands.
Prevent flu: Same as for enterovirus D-68, AND we have an Influenza vaccine for all children aged 6 months and above, with a few exceptions-see our article for more information. Last year the flu vaccine was about 60% effective: it's not perfect, but it is certainly better than not vaccinating.

Overall, remember that enterovirus D-68 is one of many cold viruses that circulate the country. We are all familiar with back-to-school viruses. My teen-aged son told me, amid his sniffles and nose-blowing last week, that "more than half my school has a cold now."
Certainly some of those colds could be enterovirus-D-68. But please don't panic. All respiratory illnesses, including colds, have the potential to travel into your child's lungs.

It is more important to practice good illness prevention techniques and to recognize the signs of difficulty breathing. As we have said before, if we parents could worry all illnesses away, no one would ever be sick.

Julie Kardos, MD and Naline Lai, MD