



East Tennessee Children's Hospital

H1N1 Influenza *(Swine Flu)*

With all the headlines about the global H1N1 influenza (swine flu) pandemic, you might be worried about keeping your family safe. But the truth is, there is no reason to panic. Right now, there is no evidence that, in the United States or countries outside of Mexico, H1N1 flu is any worse -- or more dangerous -- than the common seasonal flu.

Still, it's important to take precautions, like washing your hands often. Lise Christensen, M.D., pediatric emergency medicine specialist and director of the Children's Hospital Emergency Department, answers some of the most common questions about H1N1 flu.



**Lise Christensen, M.D.,
pediatric emergency medicine specialist**

Q: What is H1N1 flu?

A: H1N1 flu is a contagious respiratory virus that affects pigs year-round. In spring 2009, a new strain of H1N1 flu surfaced (influenza type A [H1N1] virus). It contains a combination of different flu viruses that affect pigs, birds and humans. Because of the human component of the virus, this strain can spread from person to person more easily than others.

Q: What is a pandemic?

A: A pandemic is a disease outbreak that is worldwide. Specifically as used with H1N1 flu, it means a worldwide outbreak of a NEW disease. Many people confuse the term with epidemic, which means a localized outbreak of disease.

Q: How is it spread?

A: H1N1 flu spreads in the same way that other flu viruses do -- through the air when a person who has the virus sneezes, coughs or speaks. People also can catch the virus after touching a contaminated object that someone with the virus sneezed or coughed on. As with other flu viruses, people can be contagious as early as two days before their symptoms start, so they can pass it on before they even know they are sick.

Because the flu virus is not transmitted through food, the CDC and U.S. Department of Agriculture (USDA) say it is safe to eat pork that is properly cooked (to an internal temperature of 160° F or higher, using a meat thermometer to check the temperature). There's no evidence that touching raw pork will transmit the virus, but it's always wise to wash your hands and all surfaces after touching any raw meat.

Q: Who is especially at risk?

A: As with other types of flu, individuals with chronic medical conditions (like diabetes, heart disease, asthma or other lung problems) can have more problems coping with the illness. They might get sicker and need more medical support; in some cases, hospitalization may be necessary.

Pregnant women who catch the flu also are more likely to get sicker. Having the flu can increase the risk for complications during pregnancy, labor and delivery. In infants, the flu can be life threatening and requires immediate medical attention.

Q: What are the signs and symptoms of H1N1 flu?

A: Symptoms of H1N1 flu are similar to the common flu: fever, cough, sore throat, body aches, headache, chills, fatigue and sometimes diarrhea and/or vomiting. H1N1 flu also can cause pneumonia, which can make it difficult to breathe.

Children with any of the following symptoms need immediate medical attention:

- fast breathing or difficulty breathing
- bluish skin color
- not drinking enough fluids
- very sleepy or lethargic
- in babies, being so irritable that they don't want to be held
- fever with a rash
- flu-like symptoms that initially improve, then return with fever and a more severe cough

Q: How is H1N1 flu treated?

A: Children without chronic health conditions usually tolerate infection with flu viruses fairly well. In fact, most children with H1N1 flu get better on their own -- without medical treatment.

Currently, there is no medicine to treat this strain of H1N1 flu specifically, but it does appear that some of the antiviral medicines (such as Tamiflu) used to treat common seasonal flu may ease symptoms and shorten the duration of illness.

If your child has a chronic condition, like asthma, make sure to check with your doctor to help ensure the condition is under control. Likewise, if you're pregnant and come down with flu symptoms or are exposed to someone who has the flu, call your doctor right away. You may need to take antiviral medications as a precaution for yourself and your baby.

Parents can follow these at-home tips to help most otherwise healthy children cope with the flu:

- Make sure they drink lots of fluids to prevent dehydration.
- Encourage them to get plenty of sleep and take it easy.
- Offer acetaminophen or ibuprofen to relieve fever and aches (but do not give aspirin to children).
- Dress them in layers, since the flu often makes them cold one minute and hot the next. Wearing layers -- like a T-shirt, sweatshirt and robe -- makes it easy to add or subtract clothes as needed for comfort.

Remember to call a doctor if your child seems to get better but then feels worse, develops a high fever, has any trouble breathing or seems confused.

Q: How can I protect my family?

A: Scientists have developed a vaccine against this strain of H1N1 flu, which was expected to be available in October. The vaccine is recommended for those who are at higher risk of catching H1N1 flu or having complications from it, as well as for those who are around young infants or who work in health care settings.

The Centers for Disease Control and Prevention (CDC) recommends the H1N1 flu vaccine for:

- pregnant women
- people who live with (or care for) children younger than 6 months old
- children and young people from 6 months to 24 years old
- people ages 25-64 with chronic health conditions or compromised immune systems
- health care and emergency services personnel

The H1N1 flu vaccine does not protect against seasonal flu, so it's important to also receive the seasonal flu vaccine. Both vaccines may be administered on the same day. Vaccinating your family against H1N1 flu isn't the only preventive measure you can take. The CDC also recommends these precautions:

- Cover your nose and mouth with a tissue when you sneeze or cough and put used tissues in the trash.
- If you don't have a tissue, cough or sneeze into your upper sleeve, not your hands.
- Clean your hands after coughing or sneezing -- wash with soap and water or use alcohol-based hand cleaner.
- Avoid touching your eyes, nose and mouth.
- Keep sick children home from childcare or school and limit their contact with others; children should stay home for 10 days after the onset of illness.
- Breastfeeding mothers who have the flu can continue breastfeeding, even if they are on antiviral medicines. But they may have to take additional precautions (like wearing a facemask) to reduce the risk to their baby. Talk to your doctor about how you can help keep your baby healthy.

Q: Should I take my child to the hospital or the pediatrician if I suspect a case of flu?

A: Nothing is more frightening to parents than thinking something might be wrong with their child's health. Parents can easily become overly cautious about their child's health, calling their pediatrician every time they hear their baby cough. But how does a parent know whether a child's illness is minor or if the child needs to go to the pediatrician or even to the hospital? There are certain signs and symptoms to look for in children that are definitely a reason to call a pediatrician. Some typical symptoms of illness differ depending on the child's age.

Without question, come to the Emergency Department if your child has trouble breathing, is dehydrated or has a fever that can't be controlled with over-the-counter drugs (such as Tylenol or Motrin).

Here are other guidelines: In general – not just for suspected flu – you should contact your pediatrician's office immediately if a child has any of the following symptoms listed in his or her age category:

Birth to 3 Months

- A temperature of 100.4 degrees or higher
- "Pink eye"
- Redness or tenderness around the navel area
- Vomiting that continues for more than six hours
- Diarrhea that occurs more than eight times a day
- Stops feeding normally
- Uncontrollable crying for an abnormally long time

3 Months to 1 Year

- Temperature of 101 degrees in infants 3 to 6 months, or 104 degrees in children 6 months or older
- Child refuses to eat and misses several feedings
- Unusual crankiness and irritability or unusual sleepiness
- Any blood in the stool

Infant to Adolescent

- High fever
- Chills and full-body shaking
- Extreme sleepiness or unexplained lethargy
- Unusual excitement or hysterical crying
- Sudden weakness or paralysis of any part of the body
- Seizures or severe headache
- Earache, fluid discharge from the ear or sudden hearing loss
- Severe sore throat, especially with trouble swallowing or speaking
- Vomiting for 12 hours or more or vomiting of blood
- Intense or unusual abdominal pain or a swollen or abnormally large abdomen
- A sudden rash, crop of blotches or blisters, especially over a large area of the body

Whenever your child has a symptom that concerns you, you should not hesitate to call your child's pediatrician, even if the symptom does not appear on this list, and any of the above circumstances would merit a trip to the Children's Hospital Emergency Department if a child's pediatrician is not available, but it is important to keep in mind that emergency departments are equipped to care for all children from those with minor illnesses to those with life-threatening injuries. Because of this, patients with a less severe problem usually will have to wait until more critically ill patients are treated.

The emergency department is also more appropriate than a doctor's office for sudden and serious situations such as these:

- A head injury that has caused loss of consciousness, vomiting or problems with balance or coordination
- An injury that has caused numbness and tingling or paleness in an extremity
- An injury that will likely need an X-ray and casting
- Complications related to a chronic medical condition such as diabetes or asthma
- Difficulty breathing, gasping for breath
- For an infant from birth to three months, any change in color, especially paleness or bluish color around the mouth and in the face

Although a trip to a hospital's emergency room is usually unexpected, there are a few things parents can do to prepare for a visit. Be sure to always have a child's Social Security number, current medication (dosage and schedule) and insurance information. A parent will be asked to provide this information about a sick or injured child.

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