

Influenza

“The Flu Can Kill Healthy Children”: A True Story

One Wednesday afternoon in late January 2004, 3½-year-old Emily Lastinger took an unusually long nap. Strep throat had been going around at her preschool, so Emily’s parents, Joe and Jennifer, took her to the doctor the next day to make sure she was okay. A nurse did a test and discovered that Emily had influenza (the flu). Emily was given influenza antiviral drugs to treat her illness, and her parents were told to give her plenty of fluids to drink as well as a fever reducer.

By Saturday, Emily was sicker. Her fever rose to 103 degrees, and she began vomiting. “Even though Emily was obviously sick, she was well enough to be up with the family that weekend, watching TV, and playing a bit,” recalls Jennifer. “But we were worried and called the doctor a couple of times to talk about her symptoms and ask if we should come in to have someone look at Emily.”

The doctor reassured the Lastingers that Emily had typical flu symptoms and that they should keep trying to give her plenty to drink. Jennifer and Joe were told to bring Emily in on Monday if they were still concerned.

On Monday morning, Emily’s parents made a doctor’s appointment for that afternoon. “I gave Emily a bath and

got her dressed,” says Joe. Then, Emily lay down in her parents’ room to rest. Fifteen minutes later, her mother found her lifeless on the bed.

Jennifer and Joe started CPR immediately. Soon paramedics arrived. Forty-five minutes later in the emergency room, doctors were able to start Emily’s heart and quickly transferred her to a local children’s trauma center. Doctors worked for 12 hours to keep her heart and lungs working, but Emily died that evening.

“A lot of thoughts go through your mind,” says Joe. “You think, ‘Little girls don’t suddenly collapse and die.’ You think, ‘Parents don’t go into the hospital with their child, and then leave without her.’”

The autopsy revealed that because of the flu, Emily had pneumonia with a complication called an empyema (infection in the space around the lungs). Emily had not been vaccinated against the flu.

“The flu made the unthinkable real in our family,” says Joe. “And now we’re committed to making sure that everyone knows one important truth: The flu can kill healthy children.”

“I could have gotten Emily the flu vaccine,” says Joe. “Whatever else you do, be sure to get your children the flu vaccine every year.”

The Flu is Not a Cold or a Stomach Bug

Flu illness can range in severity from mild to severe. Mild flu illness can be mistaken for the the common cold, but the flu can be much more serious. In addition to fever, cough, sore throat, and runny or stuffy nose, the flu can cause headache, muscle ache, and fatigue. And even though the flu is not a stomach bug, some people who get it (mainly children) also can have nausea, vomiting, and diarrhea.

“Although most flu illnesses in children do not lead to complications, some can lead to ear infections, pneumonia, hospitalization and, in some cases, even death,” says Dr. Joe Bresee, a pediatrician with the Centers for Disease Control and Prevention (CDC). “By far, the best way to prevent the flu is by getting a flu vaccine.”

Every year in the United States, even healthy children are hospitalized or die from flu complications. Millions of children get sick with the flu each year and thousands are hospitalized. CDC estimates that since 2010, flu-related hospitalizations in children younger than 5 years old have ranged from 7,000 to 26,000 in the United States.

The Flu Spreads Easily

People who have flu usually have a runny nose, and they cough and sneeze. The flu virus can be carried in the droplets from these coughs and sneezes. Other people can get the flu by breathing these droplets in through their noses or mouths or touching surfaces contaminated with flu virus and then touching their noses or mouths.

“The best way for parents to protect themselves and their children from the flu is to get the entire family vaccinated with a flu vaccine every year,” says Dr. Meg Fisher from the American Academy of Pediatrics.

Get a Flu Vaccine Every Year

There are two reasons for getting a flu vaccine every year. Each season, a new flu vaccine is produced that is designed to protect against the flu viruses that research indicates will be most common during the upcoming season. Because flu viruses are constantly changing, flu vaccines may be updated from one season to the next. Another reason to get vaccinated every year is because the body’s immunity from the vaccine wears off over time. Your child’s flu vaccine will protect against the flu all season, but vaccination will be needed again the next flu season.

It is not possible to know exactly when the flu season will start each year. While seasonal influenza outbreaks can happen as early as October, most of the time influenza activity peaks in February or later. Since it takes about two weeks after vaccination for antibodies to develop in the body that protect against influenza virus infection, it is best that people get vaccinated early so they are protected before the flu begins spreading in their community. However, as long as flu viruses are circulating, vaccination should continue throughout the flu season. There are many flu vaccine options available. Talk to your doctor or nurse about which one is best for you and your family members.

Who Should Get a Flu Vaccine?

Annual flu vaccination is recommended for everyone 6 months of age and older. Vaccination is especially important for parents, caregivers, and other adults who live with or come in close contact with children at high risk of getting very sick if they get the flu. Children at high risk include babies younger than 6 months (these babies are too young to be vaccinated), children 6 months through 5 years of age (but especially younger than two years of age), and people who have certain chronic health problems. For example, people with asthma (even if controlled by medication), lung disease, diabetes, and heart disease, have a higher chance of developing flu-related complications. Other health conditions that increase a person's risk of serious complications are neurologic conditions (like stroke and other conditions related to the nervous system, brain or spinal cord), blood disorders, kidney disorders, liver disorders, or a weakened immune system. "Making sure parents and children are vaccinated every year not only helps create a circle of protection around family

members—it also helps slow the spread of the flu throughout the community," says Dr. Jamie Loehr of the American Academy of Family Physicians. "Families should plan to get vaccinated against the flu soon after vaccine is available in the community."

Flu Vaccines have a good safety record

Many studies over many years have shown that flu vaccine is safe. The flu vaccine is the best way modern medicine currently has to protect against this serious disease. A number of studies have shown that the flu vaccine works, but how well the vaccine works can change from year to year and vary among different groups of people. The ability of the flu vaccine to protect a person depends on at least two things: 1) the age and health of the person getting the vaccine and, 2) the similarity or "match" between the virus strains in the vaccine and those spreading in the community. Mild side effects from the flu shot may include soreness, redness, or swelling where the shot was given, fever (low grade), or aches. If they occur, these side effects usually last 1-2 days. Severe side effects are rare.

Some people are concerned about a preservative in vaccines called thimerosal. "Parents should remember that there have been many scientific studies showing that thimerosal in vaccines does not cause harm," says CDC's Dr. Nancy Messonnier, director of the National Center for Immunization and Respiratory Diseases. While there is no scientific evidence that thimerosal is harmful in vaccines, thimerosal-free influenza vaccines are available that people can request.

Benefits of Flu Vaccine

Getting the annual flu vaccine as recommended—

- Saves lives.
- Protects against flu illness.
- Protects against serious flu complications.
- Helps protect others.

Risks of Flu Vaccine

- Most side effects are mild and usually last 1-2 days. The flu shot can cause soreness, redness, or swelling in the area where the shot was given as well as low-grade fever and achiness. Adults also may experience cough and sore throat.
- Severe side effects, such as severe allergic reactions and Guillain-Barré syndrome (an illness associated with temporary paralysis), are rare.

Selected References

Centers for Disease Control and Prevention. Influenza. In: Atkinson W, Hamborsky J, McIntyre L, Wolfe S, eds. Epidemiology and Prevention of Vaccine-Preventable Diseases (The Pink Book). 11th ed. Washington DC: Public Health Foundation, 2009. p. 135-155. www.cdc.gov/vaccines/Pubs/pinkbook/default.htm

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Only Flu Shots This Season

Annual flu vaccination is the best way to protect both children and adults from the flu.

The flu shot (inactivated or recombinant influenza vaccine) is approved for most people 6 months of age or older. Pregnant women should get inactivated influenza vaccine. The nasal spray vaccine is not recommended for 2016-17 because of concerns about its effectiveness.

Children younger than 9 years old who are getting vaccinated for the first time will require two doses of flu vaccines, spaced at least 28 days apart. So getting young children vaccinated early is important. Children who only get one dose of flu vaccine but need two doses can have reduced or no protection against the flu. Ask your health care professional about the number of doses of flu vaccine that your child needs.

Each Year, the Vaccine Protects Against Flu Viruses

Health experts in the United States closely watch flu activity around the world, and every February they decide which flu viruses are most likely to cause disease in the upcoming flu season according to which viruses are currently causing disease around the world. How well the flu vaccine works each year partly depends on how well the viruses in the vaccine match the viruses that are making people sick. Flu vaccines are not perfect. But, the flu vaccine is still the best way to prevent the flu.

The Centers for Disease Control and Prevention, American Academy of Family Physicians, and the American Academy of Pediatrics strongly recommend all children receive their vaccines according to the recommended schedule.

800-CDC-INFO (800-232-4636)

www.cdc.gov/vaccines