

# the truth about the flu. vaccine

More than half of parents have doubts about it. We asked experts to give us the lowdown on how it works and who should get immunized.

by JEANNETTE MONINGER *photographs by* ALEXANDRA GRABLEWSKI

**T**he 2012–13 flu season took a serious toll on families: 158 children—most of them younger than 11—died. That’s almost five times the number of children who were victims of the flu during the previous season. “Influenza struck early and hard,” says Dean Blumberg, M.D., chief of pediatric infectious diseases at UC-Davis Children’s Hospital, in Sacramento. Kids with chronic medical conditions such as asthma and diabetes are especially vulnerable—and yet 40 percent of the children who died during the last flu season had no prior health problem. And, sadly, about 90 percent of those who died missed out on the one thing that could have saved them: a flu vaccination.

Despite studies proving that flu vaccinations are a lifesaver, less than half of all children in the United States (and even fewer parents) are immunized each year. Fear and misinformation cause many families to take their chances with this potentially fatal respiratory virus. One recent survey from Ipsos Public Affairs, a social-research company, found that 16 percent of Americans consider the vaccine to be unsafe and 35 percent believe the vaccine causes the flu. “The tragedy is that children continue to die from an illness that is largely preventable,” says Dr. Blumberg. Because awareness and education are key to making smart decisions about your family’s health, we went to the experts to get clear-cut information about the flu and the vaccine.



Pediatricians are trying to get the point across about fighting flu.

**THE FEAR** **My baby already gets too many shots.**

**REALITY CHECK** Doctors hear this from many parents, but they want moms and dads to understand that children ages 6 months to 5 years are at a high risk of serious flu-related complications like pneumonia, dehydration, and hospitalization. In fact, an average of 20,000 kids ages 5 and younger are hospitalized with the flu every year, according to the Centers for Disease Control and Prevention, and more than a third of the children who died during the 2012–13 flu season were under age 4. “Their immature immune system is still developing the ability to make antibodies to fight off sickness,” explains Mary Glodé, M.D., head of pediatric infectious diseases at Children’s Hospital Colorado, in Aurora. That’s why kids 8 and under who are vaccinated for the first time need two separate doses at least 28 days apart. The first one primes their immune system, while the second starts providing protection.

**THE FEAR** **The vaccine can cause the flu.**

**REALITY CHECK** It’s impossible for the killed or inactivated viruses in the flu shot to cause illness. According to the Centers for Disease Control and Prevention, the nasal-spray vaccine does contain live flu strains, but they’re too weak to make you sick. Some people who get the nasal spray do experience reactions such as a runny nose, a sore throat, or fatigue. “These side effects—which are mild and short-lived compared with the actual flu—indicate that your body is building up antibodies to fight flu,” explains Pedro Piedra, M.D., pediatric infectious-disease specialist at Baylor College of Medicine, in Houston. If you or your child truly gets sick with the flu soon after being vaccinated, it means the virus had entered your system prior to or shortly after you got the vaccine.



**Cold & Flu Tips**

**THREE WAYS TO PREVENT IT:**

**“Teach your child to avoid touching his face, especially his nose and eyes. That’s how cold viruses enter your body.”**

—Dr. Pedro Piedra

**“I teach my children to cough and sneeze into the crook of their elbow, not their hands, to prevent spreading germs.”**

—Catherine Tom-Revzon, Pharm.D., spokesperson for the Pediatric Pharmacy Advocacy Group

**“Always wipe down shopping-cart handles and tables at restaurants, and stash hand sanitizer in your purse, diaper bag, and car.”**

—Michelle Kamnikar, R.N., Children’s Hospital of Pittsburgh

**TWO WAYS TO TREAT IT:**

**“Talk to your doctor about starting antiviral medication, preferably within 48 hours of the first symptoms, if you or your child gets the flu. It can reduce the risk of serious complications and cut down on how long you’re sick.”**

—Dr. Mary Glodé

**“Honey is an effective cough suppressant. Give ½ tsp. to children ages 2 to 5 years and 1 tsp. to kids ages 6 to 11. But never give honey to babies younger than 1: They can get botulism.”**

—Ian Paul, M.D., chief of the division of academic general pediatrics at Penn State College of Medicine, in Hershey

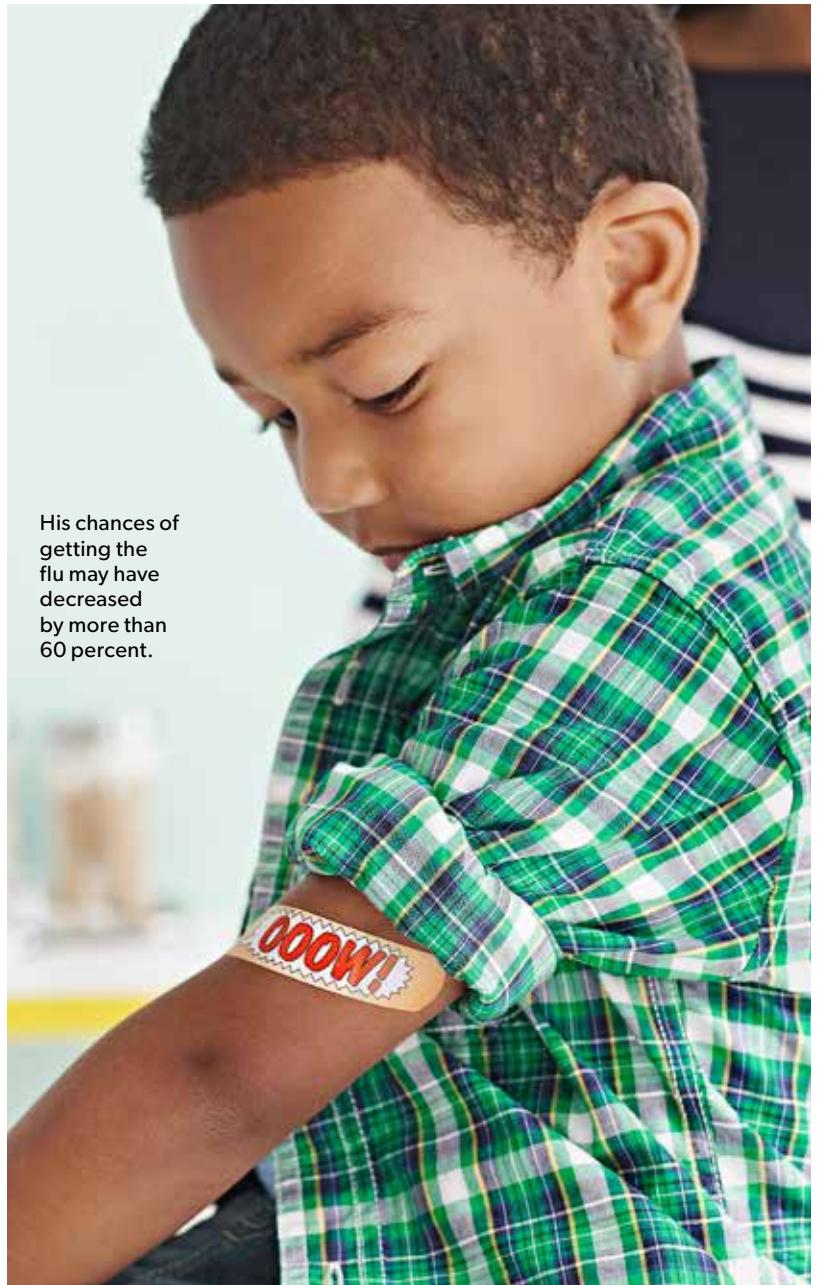
**THE FEAR** **My child has an egg allergy and the vaccine will cause a reaction.**

**REALITY CHECK** Both the shot and the nasal-spray flu vaccine contain trace amounts of egg allergen because the vaccine is grown in chicken eggs, which is why kids with egg allergies have traditionally been told to avoid them. However, a December 2012 study in the *Annals of Allergy, Asthma & Immunology* found that the amount of egg protein is too low to cause a reaction even in those who have a severe egg allergy. Still, your doctor may want to monitor your egg-allergic child for reactions for 30 minutes when she gets the vaccine for the first time. (A new egg-free flu shot, Flublok, should be available this season for adults; a version for children is expected to be on the market in the next few years.)

**THE FEAR** **It won’t help. My vaccinated child still got sick last year.**

**REALITY CHECK** No vaccine offers complete immunity. This is especially true for influenza because virus strains are constantly changing. “Experts have to guess months in advance which strains to target,” says Dr. Glodé. They’ve gotten it right 18 of the last 22 flu seasons. Even when it isn’t a perfect match, the antibodies produced in response to the vaccine can protect against related flu viruses. “Last year’s vaccine reduced the chances of flu infection by more than 60 percent,” says Dr. Piedra. This year, the vaccine’s accuracy will be even better. For the first time, “quadrivalent” vaccines will be available to protect against four flu strains that can infect us instead of three, and they are equally safe. One shot, Fluzone Quadrivalent, is approved for children ages 6 months and older, and Fluarix Quadrivalent will be available for those ages 3 and up. The nasal-spray vaccine also will be quadrivalent and can be given to

WARDROBE STYLING BY ANNIE NICHOLAS FOR ENNIS INC. · PROP STYLING BY JEN EVERETT · GROOMING BY MEL PALDINO FOR ENNIS INC. · PREVIOUS SPREAD, ON WOMAN: SWEATER, J. CREW; DRESS, OLD NAVY; NECKLACE, BANANA REPUBLIC. ON BABY: ONE-PIECE, SPLENDID.



SHIRT, OLD NAVY.

His chances of getting the flu may have decreased by more than 60 percent.

those ages 2 to 49 (excluding pregnant women). In the future, all vaccines are expected to protect against four strains.

**THE FEAR** The vaccine causes autism.

**REALITY CHECK** No study has ever shown a connection between autism and vaccines containing thimerosal, a mercury-based preservative that keeps bacteria and fungi from growing in multi-dose vials of the flu

vaccine. In fact, the 1998 study that first raised the fear about the MMR vaccine was retracted in 2010 after it was proven that the research findings were fabricated and erroneous; the lead author of the study, Andrew Wakefield, M.D., was stripped of his license to practice medicine in his native United Kingdom. Subsequent studies conducted on thousands of children indicate that both vaccinated and unvaccinated children are equally at

## YOUR ROOM-BY-ROOM STAY-HEALTHY GUIDE

When someone in your family gets sick, take these extra steps to reduce the spread of germs.

### → *the bathroom*

#### **Stock up on soap.**

Choose regular over antibacterial (its overuse may contribute to the development of antibiotic-resistant germs) and liquid over bars, which can harbor germs.

#### **Wash the right way.**

Teach your child these steps: Wet hands; add soap; rub palms, backsides, between fingers, under nails, and wrists for at least 20 seconds; rinse; and go to the next step.

**Dry off.** Give each family member her own color-coded hand towel or use disposable paper towels. In public restrooms, use a paper towel to turn off the faucet and open the door.

#### **Isolate toothbrushes.**

Keep a sick child's brush away from brushes of other family members and use disposable paper cups. There's no need to toss the brush—research has yet to show that a toothbrush can recontaminate you.

### → *the kitchen*

#### **De-germ hot spots.**

Use a disposable disinfectant cloth to regularly wipe down the countertops, faucets, and the handles on the cabinets, refrigerator, and microwave.

**Don't share cups, plates, or utensils.** And make sure you wash them well before anyone else uses them.

#### **Eat yogurt.**

A University of California at Davis study found that eating  $\frac{3}{4}$  cup of yogurt with active cultures a day may lower your chances of catching a cold by 25 percent.

### → *the bedroom*

#### **Make sleep a priority.**

Not getting enough weakens the immune system. Ideally, babies need up to 18 hours of sleep a day, toddlers need 12 to 14, preschoolers need 11 to 13, and grade schoolers should sleep 10 to 11 hours.

#### **Moisten the air.**

Keeping a room's humidity between 40 and 60 percent can reduce flu-virus particles in the air. A cool-mist humidifier in your child's room also helps loosen nasal secretions (warm-mist humidifiers are a scalding hazard).

#### **Keep toys clean.**

Soak plastic toys in a bleach solution ( $\frac{1}{4}$  cup bleach to 1 gallon of water) for up to 20 minutes, rinse thoroughly, and let air-dry, or clean hard plastic ones in the dishwasher. Wash cloth toys in hot water in the washing machine or follow instructions on the tag.

### → *the family room*

#### **Sanitize often with disinfectant wipes.**

Germs can linger for up to three hours on TV remotes, video-game controllers, keyboards, phones, light switches, stair railings, and doorknobs.

#### **Keep separate bedding.**

Give your sick child his own pillow and blanket for when he's resting on the couch. Wash these in hot water.

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risk for autism. But if you're still concerned, the nasal spray FluMist doesn't contain thimerosal and single-dose preservative-free versions of the flu shot are now more widely available.

**THE FEAR We didn't get our kids vaccinated right away, and now it's too late.**

**REALITY CHECK** Even though most doctors start offering the vaccine in the late summer and fall, shipments continue to arrive during the peak of flu season in January and February, and flu can continue to spread as late as May (as it did last season, when ten children died). Getting vaccinated early is still a good idea, though, because it takes about two weeks for the body to develop antibodies to fight flu. And of course it's key to practice—and instill—good hygiene habits (see “Your Room-by-Room Stay-Healthy Guide,” on page 102, for the most crucial ways to ward off germs).

**THE FEAR I'm pregnant, and getting vaccinated could harm my baby.**

**REALITY CHECK** Catching the flu while pregnant increases your risk of miscarriage and premature birth. Being sick is also dangerous for you. “Your lungs and heart already work harder when you're pregnant,” says Dr. Glodé. “Influenza strains them even more and can lead to pneumonia and hospitalization.” Besides, when you get vaccinated, you pass flu-fighting antibodies on to your baby-to-be that can protect him for up to four months after birth. 😊