Parents' Guide to Childhood Immunization

Influenza (Flu)

Influenza (Flu) is a seasonal illness, occurring mainly during the winter. It is caused by influenza virus. Influenza viruses are continually changing, meaning that immunity you acquire one year will not necessarily protect you in future years. This makes influenza different from most diseases, in that you can get it more than once. It also means that it is important to be re-immunized every year.

Influenza is spread from person to person through sneezing, coughing or breathing. Signs and symptoms include fever, sore throat, cough, headache, chills and muscle aches. Young children might also have vomiting and diarrhea. Complications can include ear and sinus infections, pneumonia, myocarditis (inflammation of the heart), and death. Influenza causes more deaths (about 36,000 per year) than any other vaccine-preventable disease. Most of these are among the elderly, but some children also die. Hospitalization rates are high among children, particularly those less than 1 year old.

Influenza Vaccine

There are two types of influenza vaccine. The first is an inactivated (killed) vaccine given as a shot, which has been used for many years. It can be given to anyone 6 months of age and older. The second is a live, attenuated (weakened) vaccine, which is sprayed into the nose and was licensed in 2003. It is not licensed for children younger than 2 years old.

Because influenza viruses change from year to year, new vaccines must also be formulated each year, and annual vaccination is recommended. The inactivated influenza vaccine is 70%–90% effective in healthy children, and the live, intranasal vaccine is about 87% effective in healthy children 5–7 years of age.

Many other infections have the same symptoms as influenza and are often mistakenly called "flu." Neither vaccine is effective against infections that are not actually caused by influenza viruses. One dose of vaccine (either type, depending on age) is

recommended annually, beginning around October or November. For children younger than 9 who are getting influenza vaccine for the first time, 2 doses are recommended, and should be given at least a month apart.

Influenza Vaccine Side Effects

Inactivated Vaccine

About 15%–20% of those who get inactivated influenza vaccine have a mild local reaction, such as **soreness or redness** where the shot was given. These generally last 1 or 2 days. A very small number, less than 1%, may get a **fever**, **chills** or **muscle aches**. Because the virus in this vaccine has been killed, it cannot cause influenza. Some inactivated influenza vaccine contains a preservative called thimerosal, which contains mercury. Some people believe that thimerosal in vaccines has been associated with developmental problems, including autism. In 2004 the Institute of Medicine reviewed scientific studies looking for a connection between thimerosal and these problems, but concluded that there is no evidence of such a connection. Parents can ask their providers about the availability of thimerosal-free vaccine.

Live, intranasal vaccine

Some children have gotten a **runny nose** or **nasal congestion**, **fever**, **headaches** or **muscle aches**, **abdominal pain** or **vomiting**. Since these symptoms are fairly common among all children, it is difficult to tell whether their occurrence after vaccination is due to the vaccine or not. Although the vaccine contains live influenza virus, it has been weakened and altered in other ways so it does not cause influenza.

Influenza Vaccine Precautions

Inactivated vaccine

In addition to the normal precautions for all vaccines, shown on page 30, children who are known to have a **severe allergy to eggs** should not get inactivated influenza vaccine.

Live, Intranasal Vaccine

In addition to the normal precautions for all vaccines, shown on page 30, children who have a **severe allergy to eggs** should not get

live influenza vaccine. Children who have a **weakened immune system**, who have **chronic medical conditions** such as asthma, reactive airways disease, diabetes, renal disease, or sickle cell disease, or who are receiving **long-term therapy with aspirin or other salicylates** should also not get this vaccine. The vaccine is not known to be harmful to these people, but it has not yet been thoroughly tested in them.

http://www.cdc.gov/vaccines/vpd-vac/flu/downloads/pg_why_vacc_flu.pdf