How do flu vaccines work?
Flu vaccines for seasonal flu:
• Cause us to make antibodies to fight the ‘real’ virus. If we come in contact with the real virus, we will be able to fight it off quickly, usually without getting sick.
• Are made with tiny parts of dead viruses (flu shot), or with weakened, live viruses (intra nasal).

Can vaccines cause the flu?
No. The weakened live virus in the intranasal vaccine is too weak to give your child the flu. And there is no ‘live’ virus in the flu shot. Remember that during ‘flu’ season, there are hundreds of viruses around that can cause cough, runny nose, diarrhea, fever and body aches. If people get sick after the flu vaccine, it is because they:
• Caught another virus, or;
• Got the shot when they already had the flu virus, and their bodies did not have enough time to make antibodies to fight it.

Do flu vaccines really work?
Yes. The flu vaccine will work well for 7-9 out of 10 healthy children and adults, if there is a good match between virus particles used to make the vaccine and the flu viruses that are going around. Not everyone should get the intranasal flu vaccine. Your healthcare provider will tell you if this vaccine is right for your child or teen. People who get the flu after getting the vaccine will have a much milder flu than if they didn’t get the vaccine. Health care workers who get flu vaccines get sick less often and miss fewer days at work.

Types of flu vaccines
Each year, Public Health experts recommend types of flu vaccines based on age. Babies under 6 months of age can’t have the flu vaccine. Children under 9 may need 2 doses of the vaccine in the same season, if they’ve never had flu vaccine before. Talk to your health care provider about which vaccine is best for your child.

1. The flu shot (needle) is recommended for children 6-23 months of age, and anyone 18 years of age or older. It is available free of charge, and it protects against 3 different types of flu virus. It’s given in 1 or 2 injections, depending on whether the child has had a previous flu vaccine.

2. Intranasal flu vaccine is sprayed into the nose, and is recommended for children aged 2 through 5 years. Children and youth up to 17 years of age may have intranasal vaccine or the flu shot. This vaccine is available free of charge for children and youth 2-17 years of age. It does not contain thimerosal or other preservatives. It is made from weakened flu virus and does not cause flu. Some people should not get this vaccine because of age, health conditions, or other reasons. Most of these people should get the flu shot instead. Your healthcare provider can help you decide.

Do healthy children need flu shots?
Yes! Somewhere between 1 and 4 out of every 10 healthy preschool and school aged children get the flu every year. The flu can spread quickly in children and youth because of group activities like school and childcare. And it’s not just children with health problems who can get very sick with seasonal flu. Healthy children under 2 have to be cared for in hospital as often as elderly people. And healthy babies under a year have the highest risk of death from flu.
Children with health problems could also get very, very sick if they get seasonal flu. This includes children and youth:

- With developmental problems, brain or neuromuscular disorders;
- With immune system problems (including children taking medications that weaken their immune system);
- With heart or lung problems (for example, Cystic Fibrosis);
- Who are morbidly obese, even if they don’t have any other chronic health problems.

**Do healthy adults need flu shots?**

Yes! Many people think that only people with health problems need a flu shot. But the last time there was a large flu outbreak, it was healthy adults who died most often. Healthy people who don’t get a flu shot can pass the flu on to others (like their patients, children and other family members), even if they don’t get really sick themselves. Preventing the spread of the flu also lowers the chance of people getting pneumonia caused by bacteria (close to 1 out of 3 people who died of H1N1 in the United States also had a bacterial infection).

**I’ve heard that some people got Guillain-Barré syndrome (GBS) after getting vaccine in the 1970’s—could this happen again?**

In 1976, a very small number of people developed GBS (a disorder that causes temporary paralysis) after getting a shot for swine flu (out of 48 million people who got the vaccine, less than 300 developed GBS). This vaccine did not go through the usual system of checks. While there was no proof that the shot caused GBS, we no longer use that vaccine. There may be a one in a million chance of getting GBS after a flu shot, but the chance of getting very sick with the flu is much higher.

Remember that the flu can cause many serious problems like:

- Swelling of the brain itself and brain coverings (encephalitis and meningitis)
- Movement disorders (like GBS)
- Coma
- Seizures

It’s important to weigh concerns about the rare occurrence of GBS with the very real chance of serious problems the flu can cause.

**Is there mercury in the flu shot? Is mercury linked with autism?**

There are tiny amounts of thimerosal in multiple dose vials of the flu shot. Thimerosal prevents bacteria from growing in the bottle of vaccine. Single dose packages of the flu shot do not contain thimerosal. Thimerosal breaks down into a kind of mercury, but not the kind that causes mercury poisoning. Many large studies have showed us that **preservatives (like thimerosal) in vaccines do not cause autism.** In Denmark, thimerosal was taken out of vaccines, but this didn’t reduce the number of children who developed autism. The World Health Organization and the Institute of Medicine have carefully reviewed this research and concluded that thimerosal does **not** cause autism.

**Can people with egg allergies get the flu vaccine?**

There are very tiny amounts of egg protein in flu vaccines. Anyone who has a severe allergic reaction to eggs should be immunized in a medically supervised setting.

**Should pregnant or breastfeeding women get the flu shot?**

Yes. Remember that the flu shot (needle) does not have any live virus in it. It can’t cause the flu in a pregnant woman or her baby. And the antibodies the woman makes after getting the flu shot will be shared with her unborn baby. This will help to protect the baby from the flu after it is born. The flu shot won’t harm a baby who is breastfeeding. Pregnant women should not receive intranasal flu vaccine.

It’s important for pregnant women to get the vaccine for seasonal flu. Pregnant women who get seasonal flu have a higher chance of:

- Becoming very, very sick
- Having to stay in hospital
- Dying

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Questions?

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