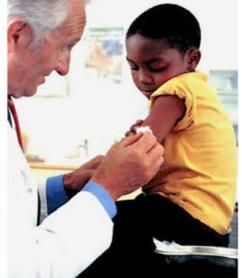
No More Excuses: You Need a Flu Vaccine

Get the Facts

- The flu vaccine is safe, does not cause the flu, and can protect the ones you love.
- Spread the word and GET VACCINATED!





Even healthy people need a flu vaccine.

Influenza (flu) is a contagious disease which affects the lungs and can lead to serious illness, including pneumonia. Even healthy people can get sick enough to miss work or school for a significant amount of time or even be hospitalized. The flu vaccine is recommended for everyone 6 months of age and older. Pregnant women, young children, older people, and people with certain chronic medical conditions like asthma, diabetes and heart disease are at increased risk of serious flu-related complications, so getting a yearly flu vaccine is especially important for them.

Is the flu vaccine safe?

Yes. The flu vaccine is safe. They have been given to hundreds of millions of people for more than 50 years and have a very good safety track record. Each year, CDC works closely with the U.S. Food and Drug Administration (FDA), and other partners to ensure the highest safety standards for flu vaccines.

The most common side effects of flu vaccines are mild.

The flu vaccine cannot cause flu illness; however, it can cause mild side effects that may be mistaken for flu. For example, people vaccinated with the flu shot may feel achy and may have a sore arm where the shot was given. People vaccinated with the nasal spray flu vaccine may have a stuffy nose and sore throat. These side effects are NOT the flu. If experienced at all, these effects are usually mild and last only 1-2 days.

Even if I get sick, won't I recover quickly?

Not necessarily. Influenza can be serious and anyone can become sick with flu and experience serious complications. But even if you bounce back quickly, others around you might not be so lucky. Older people, young children, pregnant women and people with medical conditions like asthma, diabetes, heart disease and lung disease are at especially high risk from the flu. Kids, teens and adults who are active and healthy also can get very sick from flu and spread it to others. Some people can be infected with the flu virus but have no symptoms. During this time, you can still spread the virus to others. Don't be the one spreading flu to those you care about.



Can't I wait and get vaccinated when/if flu hits my community?

It is best to get vaccinated before flu begins to spread. It takes about two weeks for the flu vaccine to provide full protection, so the sooner you get vaccinated, the more likely it is that you will be fully protected once flu begins to circulate in your community.

Flu vaccines can't give you the flu.

Even if you got a flu vaccine, there are reasons why you might still get flu or a flu-like illness.

- You may have been exposed to a non-flu virus before or after you got vaccinated. The flu vaccine can only prevent illnesses caused by flu viruses.
 It cannot protect against non-flu viruses that may cause flu-like illness.
- Or you might have been exposed to flu after you got vaccinated but before the vaccine took effect. It takes about two weeks after you receive the vaccine for your body to build protection against the flu.
- Or you may have been exposed to an influenza virus that was very different from the viruses included in that year's vaccine. The flu vaccine protects against the influenza viruses that research indicates will cause the most disease during the upcoming season, but there can be other flu viruses circulating.
- Unfortunately, the flu vaccine doesn't provide the same protection for everyone. How well the flu vaccine works (or its ability to prevent flu) can range widely from season to season and also can vary depending on who is being vaccinated.

Don't avoid getting a flu vaccine because you don't like shots.

The very minor pain of a flu shot is nothing compared to the suffering that can be caused by the flu. The flu can make you very sick for several days; send you to the hospital, or worse. For most healthy, non-pregnant people ages 2 through 49 years old, the nasal spray flu vaccine is a great choice for those who don't like shots. Also, there is an intradermal shot that uses a much smaller needle than the regular flu shot. Either way, getting the shot or nasal spray can help to protect you from catching the flu. So, whatever little discomfort you feel from the minor side effects of the flu vaccine is worthwhile to avoid the flu.

You need to get a flu vaccine every year.

You need to get a flu vaccine every year to protect yourself against the viruses that research suggests are most likely to circulate each season. There are two reasons for getting a flu vaccine every year:

- a) The first reason is that because flu viruses are constantly changing, flu vaccines may be updated from one season to the next to protect against the viruses research indicates may be most common during the upcoming flu season.
- b) The second reason that annual vaccination is recommended is that a person's immune protection from the vaccine declines over time. Annual vaccination is needed for optimal protection.



Get a Flu Vaccine

- Flu vaccines are offered in many locations. Even if you don't have a regular doctor or nurse, you can get a flu vaccine somewhere else including: doctor's offices, clinics, health departments, retail stores, pharmacies, health centers, as well as by many employers and schools.
- Use the vaccine finder at http://vaccine.healthmap.org/ to find a flu vaccination clinic near you.



For more information, visit http://www.cdc.gov/flu or call 1-800-CDC-INFO (800-232-4636).

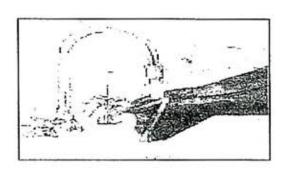
Chronic Lung Disease: Preventing Exacerbations

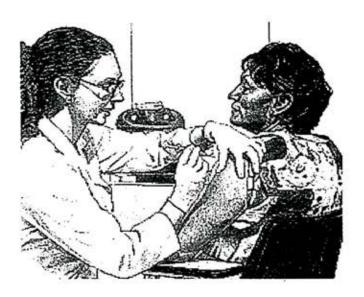
When you have COPD, it's especially important to protect yourself from colds and other types of lung infections. These can lead to **exacerbations** (periods of worsened COPD). The tips on this sheet will help you stay healthy. You should talk to your doctor about what to do if you have an exacerbation.

Take Precautions

Taking the following precautions can help you avoid illness:

- Wash your hands often, and keep them away from your face. Most germs are spread through hand-to-mouth contact. Wash your hands with soap and warm water.
 Lather well for at least 10-15 seconds.
 Then rinse well.
- Use hand sanitizer, between washings.
 Especially important after touching things many other people have touched (such as supermarket carts or door handles).
- Get a flu vaccination every year. This
 may be given at the doctor's office, a pharmacy,
 or through work. It's best to get the vaccination
 in the fall of each year.
- Get a pneumonia vaccination. Ask your doctor how often you need this.
- Avoid spending time around people with respiratory infections such as colds or the flu. Try not to go out in crowds in the winter when more people are sick.
 Also try to avoid air travel during this time.

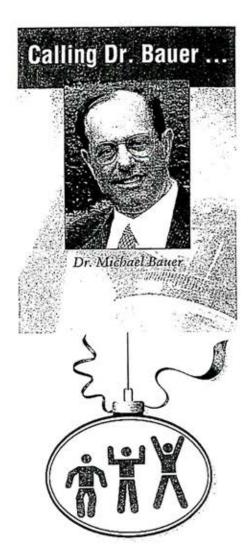




In Case of an Exacerbation

You and your doctor should come up with a plan for what to do if you have an exacerbation. This may involve using a rescue inhaler or taking antibiotics or other medication. Here are warning signs of a problem:

- · Increased shortness of breath, wheezing, or coughing
- Mucus that has increased, has an odor, has changed color, or is bloody
- A fever or chills
- · Tightness in your chest that does not go away with your normal medications
- · Sore throat or hoarseness
- Fatigue
- Swollen ankles



Dear Dr. Bauer,

I've been hospitalized with two COPD exacerbation events. I was treated with antibiotics. Antibiotics are ineffectual against viral infections, are there no drugs to combat viruses?

Jerry D.

You ask a very good question about the cause and treatment of pulmonary infections in those with underlying lung disease. The common cold (cough, nasal congestion, clear sputum production) is almost always the result of a viral infection. Drug companies are performing research daily to find a safe, cheap pill that will kill viruses. Viruses are "simple" forms of life that have been around billions of years because of their adaptability and resistance to stresses in the environment. Vaccines to some viruses such as influenza have been developed at great cost but it is just touching the tip of the iceberg since we are exposed to many other viruses every day.

When a patient with lung disease is admitted to the hospital with an "exacerbation," we have few effective tests that can differentiate between a viral or a bacterial cause. Both result in very similar symptoms of fever, cough, green sputum and shortness of breath. We often order blood cultures and sputum cultures for bacteria, but these can take days to get an answer. Culturing viruses is very hard in a hospital laboratory. Not knowing an exact cause, doctors will frequently start right away with antibiotics with the hope that if it is a bacteria, we can get on top of it right away. Bad viral infections sometimes make us more susceptible to secondary bacterial infections when they weaken our body's defenses.

Using antibiotics too frequently and for too long a period will make the patient prone to develop a "resistant" infection. This seems to be happening more and more. Patients need to know that antibiotics can be very effective but need to be used only with appropriate indications.

Let me take this opportunity to wish all of our *Pulmonary Paper* readers a very happy holiday season and a great New Year in 2014!

Question for Dr. Bauer? You may write to him at The Pulmonary Paper, PO Box 877, Ormond Beach, FL 32175 or by email at info@pulmonarypaper.org.



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VACCINE INFORMATION STATEMENT

Pneumococcal Conjugate Vaccine (PCV13) What You Need to Know

Many Vaccine Information Statements are available in Spanish and other languages. See www.immunize.org/vis

Hojas de información sobre vacunas están disponibles en español y en muchos otros idiomas. Visite www.immunize.org/vis

1 Why get vaccinated?

Vaccination can protect both children and adults from pneumococcal disease.

Pneumococcal disease is caused by bacteria that can spread from person to person through close contact. It can cause ear infections, and it can also lead to more serious infections of the:

- · Lungs (pneumonia),
- · Blood (bacteremia), and
- · Covering of the brain and spinal cord (meningitis).

Pneumococcal pneumonia is most common among adults. Pneumococcal meningitis can cause deafness and brain damage, and it kills about 1 child in 10 who get it.

Anyone can get pneumococcal disease, but children under 2 years of age and adults 65 years and older, people with certain medical conditions, and cigarette smokers are at the highest risk.

Before there was a vaccine, the United States saw:

- · more than 700 cases of meningitis,
- · about 13,000 blood infections,
- · about 5 million ear infections, and
- · about 200 deaths

in children under 5 each year from pneumococcal disease. Since vaccine became available, severe pneumococcal disease in these children has fallen by 88%.

About 18,000 older adults die of pneumococcal disease each year in the United States.

Treatment of pneumococcal infections with penicillin and other drugs is not as effective as it used to be, because some strains of the disease have become resistant to these drugs. This makes prevention of the disease, through vaccination, even more important.

2 PCV13 vaccine

Pneumococcal conjugate vaccine (called PCV13) protects against 13 types of pneumococcal bacteria.

PCV13 is routinely given to children at 2, 4, 6, and 12–15 months of age. It is also recommended for children and adults 2 to 64 years of age with certain health conditions, and for all adults 65 years of age and older. Your doctor can give you details.

3 Some people should not get this vaccine

Anyone who has ever had a life-threatening allergic reaction to a dose of this vaccine, to an earlier pneumococcal vaccine called PCV7, or to any vaccine containing diphtheria toxoid (for example, DTaP), should not get PCV13.

Anyone with a severe allergy to any component of PCV13 should not get the vaccine. *Tell your doctor if the person being vaccinated has any severe allergies*.

If the person scheduled for vaccination is not feeling well, your healthcare provider might decide to reschedule the shot on another day.

4 Risks of a vaccine reaction

With any medicine, including vaccines, there is a chance of reactions. These are usually mild and go away on their own, but serious reactions are also possible.

Problems reported following PCV13 varied by age and dose in the series. The most common problems reported among children were:

- About half became drowsy after the shot, had a temporary loss of appetite, or had redness or tenderness where the shot was given.
- About 1 out of 3 had swelling where the shot was given.
- About 1 out of 3 had a mild fever, and about 1 in 20 had a fever over 102.2°F.
- Up to about 8 out of 10 became fussy or irritable.

Adults have reported pain, redness, and swelling where the shot was given; also mild fever, fatigue, headache, chills, or muscle pain.

Young children who get PCV13 along with inactivated flu vaccine at the same time may be at increased risk for seizures caused by fever. Ask your doctor for more information.



Problems that could happen after any vaccine:

- People sometimes faint after a medical procedure, including vaccination. Sitting or lying down for about 15 minutes can help prevent fainting, and injuries caused by a fall. Tell your doctor if you feel dizzy, or have vision changes or ringing in the ears.
- Some older children and adults get severe pain in the shoulder and have difficulty moving the arm where a shot was given. This happens very rarely.
- Any medication can cause a severe allergic reaction.
 Such reactions from a vaccine are very rare, estimated at about 1 in a million doses, and would happen within a few minutes to a few hours after the vaccination.

As with any medicine, there is a very small chance of a vaccine causing a serious injury or death.

The safety of vaccines is always being monitored. For more information, visit: www.cdc.gov/vaccinesafety/

5

What if there is a serious reaction?

What should I look for?

 Look for anything that concerns you, such as signs of a severe allergic reaction, very high fever, or unusual behavior.

Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness—usually within a few minutes to a few hours after the vaccination.

What should I do?

 If you think it is a severe allergic reaction or other emergency that can't wait, call 9-1-1 or get the person to the nearest hospital. Otherwise, call your doctor.

Reactions should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor should file this report, or you can do it yourself through the VAERS web site at www.vaers.hhs.gov, or by calling 1-800-822-7967.

VAERS does not give medical advice.

6

The National Vaccine Injury Compensation Program

The National Vaccine Injury Compensation Program (VICP) is a federal program that was created to compensate people who may have been injured by certain vaccines.

Persons who believe they may have been injured by a vaccine can learn about the program and about filing a claim by calling 1-800-338-2382 or visiting the VICP website at www.hrsa.gov/vaccinecompensation. There is a time limit to file a claim for compensation.

7

How can I learn more?

- Ask your healthcare provider. He or she can give you the vaccine package insert or suggest other sources of information.
- · Call your local or state health department.
- Contact the Centers for Disease Control and Prevention (CDC):
 - Call 1-800-232-4636 (1-800-CDC-INFO) or
 - Visit CDC's website at www.cdc.gov/vaccines

Vaccine Information Statement PCV13 Vaccine

11/05/2015

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Recommendations for the use of pneumococcal polysaccharide vaccine (PPSV23; Pneumovax)*

Immunocompetent persons	
Persons aged ≥65 years	
Persons aged 19-64 years with chronic cardiovascular diseas (including asthma), or diabetes mellitus Δ	se, chronic pulmonary disease
Persons aged 19-64 years who smoke cigarettes, or who had isease, cerebrospinal fluid leaks, or cochlear implants \bullet Δ	ve alcoholism, chronic liver
Persons aged 19-64 years living in special environments or care facilities \bullet Δ	social settings such as chronic
Immunocompromised persons	
Immunocompromised persons aged ≥19 years, including the malignancy, chronic renal disease, nephrotic syndrome, con receiving immunosuppressive chemotherapy (including glucorgan or bone marrow transplantation.	genital immunodeficiency; those
Groups for which revaccination is recommended	Notes
Immunocompetent persons	
Persons aged ≥65 years	Second dose of vaccine if patient received vaccine ≥5 years previously and was aged <65 years at the time of vaccination.
Immunocompromised persons	
Immunocompromised persons aged ≥19 years, including those with HIV infection, malignancy, chronic renal disease, nephrotic syndrome, congenital immunodeficiency; those	Single revaccination if ≥5 years have elapsed since receipt of first dose.

^{*} Routine use of PPSV23 is not recommended for Alaska Native or Native Americans <65 years of age unless they have underlying medical conditions that are PPSV23 indications. However, public health authorities may consider PPSV23 for Alaska Natives and Native Americans 50 through 64 years of age who are living in areas in which the risk of invasive pneumococcal disease is increased.

[·] Revaccination not recommended.

Δ Revaccination not recommended while under the age of 65; once over the age of 65, a second dose of vaccine can be given ≥5 years after the first dose.