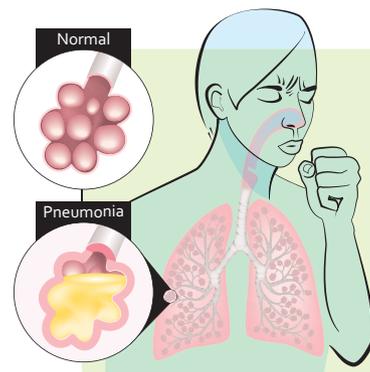


Pneumococcal (Pneumonia) Vaccines

Pneumonia is a serious infection of the lungs in which the air sacs fill with fluid or pus. It can be life-threatening especially to infants, children, people over 65 years of age, and people with problems with their immunity (ability to fight infection). Pneumonia can be caused by a variety of bacteria and viruses. Not all types of pneumonia can be prevented. You can protect yourself from some types of pneumonia by getting vaccines (immunizations).



Vaccines that protect against the two major causes of pneumonia are the influenza vaccine (called the flu shot) and pneumonia vaccines (called pneumonia shots). This fact sheet will talk about pneumonia shots. For information about flu shots, go to www.thoracic.org/patients.

What are the pneumococcal (pneumonia) vaccines?

The pneumococcal vaccines provide protection against the pneumococcus bacteria (often called Strep pneumonia). This is the type of bacteria that causes pneumonia and can also cause other serious infections of the ears, blood, or brain and spinal cord. There are several different types of Strep pneumonia that can cause infection. The Centers for Disease Control (CDC) advises that all children get immunized with vaccines against Streptococcus bacteria.

Other people who are at high risk of pneumonia may also need to get booster (extra doses) of pneumococcal vaccines.



What are the types of pneumococcal vaccines?

There are two forms of pneumonia vaccines. Both are given as a shot, usually in the muscle of the arm or leg (thigh).

1. The PPSV23 (pneumococcal polysaccharide vaccine) protects against 23 different types of Strep pneumonia. It is typically used in adults and in children with certain high risk conditions.

2. The PCV13 (pneumococcal conjugate) protects against 13 different types of Strep pneumonia that are the most common cause of pneumonia. It is typically given to all infants, children, and some adults who are at a high risk for serious pneumonia infections.

Why is it important to get vaccinated?

Pneumonia is a serious disease. Every year, it is estimated that 18,000 older adults and 200 children under 5 die each year from the disease, and 250,000 people are sick enough to require care in the hospital. The pneumonia vaccines help protect everyone against pneumonia. Some people who have had a pneumonia shot may still get pneumonia, but it will be less severe than if they did not get the shot.

Who should receive the pneumonia vaccine?

Group	PPSV23	PCV13
Children	✓ only for children 2 years and older with selected high risk conditions	✓ all children—typically started early infancy < 2 years of age
Adults 65 years and older	✓	Only in selected cases
Adults 18 years and older who smoke	✓	
Adults who have chronic conditions including heart or lung conditions, diabetes mellitus, alcoholism or liver disease.	✓	
Adults with high risk conditions for serious infection such as chronic kidney failure, leukemia, poor function of the spleen, HIV infection, a history of organ transplantation, or an immune system that is weaker than normal.	✓	✓
Pregnant Women—both are safe to give during pregnancy	✓ if needed	✓ if needed

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Talk with your healthcare provider about whether you need a pneumonia shot, which one is best for you, and when you should receive it.

PCV13 is routinely given to children at 2, 4, 6, and 12–15 months of age.

The PCV13 and PPSV23 vaccines cannot be given at the same time. When both are needed, the PCV13 is usually given first. Ask your healthcare provider how long a time to wait before getting the second vaccine.

Do I need a booster (extra) dose of pneumonia vaccine?

The body's immune response to PPSV23 reduces over time and therefore repeat vaccination with PPSV23 is advised every 5 to 10 years for people who are at highest risk of infection

What are the risks for the pneumococcal (pneumonia) vaccines?

- The most common adverse reactions are redness, pain or swelling at the injection site. You may also experience fever, chills, loss of appetite or a headache.
- The most serious adverse reaction is a severe allergic reaction. While this can be life threatening, it is very rare and occurs approximately one in every million doses given.

Who should not receive the pneumococcal (pneumonia) vaccines?

- Anyone who has had a life-threatening allergic reaction to the vaccine, to earlier versions of the vaccine or those with a severe allergy to any component of the vaccines should not get it before consulting with their healthcare provider.
- Anyone feeling ill should wait until feeling better to receive the vaccine.

How effective is the pneumococcal (pneumonia) vaccine?

- In short—very effective! Several large research studies have shown that the vaccines are very effective at reducing the chance of getting bacterial pneumonia from *Streptococcus pneumoniae* and the complications associated with it. When all children started to get the PCV vaccine, the rate of severe pneumococcal infection in the US dropped by 88%.
- Pneumonia vaccine is 60%-80% effective when it is given to those with weak immune systems (immunocompromised), people over 65 and older, and people with chronic illnesses. Although the vaccine is less effective in those with weakened immune systems, the vaccine can significantly lower the risk of serious pneumococcal disease and its complications in most people.

What about the influenza (flu) vaccine?

Everyone 6 months and older should get a flu shot every season, with rare exceptions. For more information about the flu and flu shots, go to www.thoracic.org/patients.

How is influenza (flu) related to getting pneumonia?

- During the flu season, every person is at risk for the flu.
- While many sick with the flu tend to recover within two weeks, some people can develop complications.
- Even if you have a mild case of the flu, being sick can make it harder for you to fight off new bacteria and viruses. This is why you can develop pneumonia after the flu, in fact, one-third of pneumonia cases develop from a respiratory illness.
- It is very important to get the flu shot every year unless your healthcare provider says you should not.

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Rx Action Steps

- ✓ Have your child get all recommended doses of the pneumonia vaccine on schedule.
- ✓ Check with your healthcare provider to see if you need a booster shot if you have a chronic disease or any problems with your immunity.
- ✓ Get a yearly influenza (flu) vaccine to protect against flu infection.
- ✓ Use good hand hygiene and follow your healthcare provider's advice to manage chronic illness to help avoid pneumonia.
- ✓ If you think you have pneumonia, seek medical help promptly.

Healthcare Provider's Contact Number:

Resources

American Thoracic Society

- www.thoracic.org/patients
– influenza (Flu Shot)

Centers for Disease Control (CDC)

- <https://www.cdc.gov/vaccines/vpd/pneumo/index.html>

American Academy of Pediatrics – Healthy Children

- <https://www.healthychildren.org/English/safety-prevention/immunizations/Pages/Pneumococcal-Conjugate-Vaccine-What-You-Need-to-Know.aspx>

Immunization Action Coalition

- <https://www.immunize.org/pneumococcal-pcv/>

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