

Pneumococcal Polysaccharide Vaccine: What you need to know

1. Pneumococcal disease

Pneumococcal disease is caused by *Streptococcus pneumoniae* bacteria. Anyone can get pneumococcal disease, but some people are at greater risk than others:

- People 65 years and older
- The very young
- People with certain health problems
- People with a weakened immune system
- Smokers

Pneumococcal disease can lead to serious infections of the:

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

Pneumococcal pneumonia kills about 1 out of 20 people who get it. Bacteremia kills about 1 person in 5, and meningitis about 3 people in 10.

2. Pneumococcal polysaccharide vaccine (PPSV)

Treatment of pneumococcal infections with penicillin and other drugs used to be more effective. But some strains of the disease have become resistant to these drugs. This makes prevention of the disease, through vaccination, even more important.

Pneumococcal polysaccharide vaccine (PPSV) protects against 23 types of pneumococcal bacteria, including those most likely to cause serious disease.

Most healthy adults who get the vaccine develop protection to most or all of these types within 2 to 3 weeks of getting the shot. Very old people, children under 2 years of age, and people with some long-term illnesses might not respond as well, or at all.

Another type of pneumococcal vaccine (pneumococcal conjugate vaccine, or PCV) is routinely recommended for children younger than 5 years of age.

3. Who should get PPSV?

- All adults 65 years of age and older.
- Anyone 2 through 64 years of age who has a long-term health problem such as:
 - heart disease
 - lung disease
 - diabetes
 - alcoholism
 - cirrhosis

- -sickle cell disease
- leaks of cerebrospinal fluid or cochlear implant
- Any adult 19 through 64 years of age who:
 - is a smoker
 - has asthma

PPSV may be less effective for some people, especially those with lower resistance to infection.

But these people should still be vaccinated, because they are more likely to have serious complications if they get pneumococcal disease.

4. How many doses of PPSV are needed, and when?

Usually only one dose of PPSV is needed, but under some circumstances a second dose may be given.

- A second dose is recommended for people 65 years and older who got their first dose when they were younger than 65 and it has been 5 or more years since the first dose.
- A second dose is recommended for people 2 through 64 years of age who:
 - have a damaged spleen or no spleen
 - have sickle-cell disease
 - have HIV infection or AIDS
 - have cancer, leukemia, lymphoma, multiple myeloma
 - have nephrotic syndrome
 - have had an organ or bone marrow transplant
 - are taking medication that lowers immunity (such as chemotherapy or long-term steroids)

When a second dose is given, it should be given 5 years after the first dose.

5. Some people should not get PPSV or should wait

- Anyone who has had a life-threatening allergic reaction to PPSV should not get another dose.
- Anyone who has a severe allergy to any component of a vaccine should not get that vaccine. Tell your doctor if you have any severe allergies.
- Anyone who is moderately or severely ill when the shot is scheduled may be asked to wait until they recover before getting the vaccine. Someone with a mild illness can usually be vaccinated.
- While there is no evidence that PPSV is harmful to either a pregnant woman or to her fetus, as a precaution, women with conditions that put them at risk for pneumococcal disease should be vaccinated before becoming pregnant, if possible.

6. What are the risks from PPSV?

About half of people who get PPSV have mild side effects, such as redness or pain where the shot is given.

Less than 1% develop a fever, muscle aches, or more severe local reactions.

A vaccine, like any medicine, could cause a serious reaction. But the risk of a vaccine causing serious harm, or death, is extremely small.

7. 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 behavior changes.

Signs of a severe allergic reaction can include hives, swelling of the face and throat, difficulty breathing, a fast heartbeat, dizziness, and weakness. These would start 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.
- Afterward, the reaction should be reported to the Vaccine Adverse Event Reporting System (VAERS). Your doctor might 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 is only for reporting reactions. They do not give medical advice.

8. How can I learn more?

- Ask your doctor.
- Call your local or state health department.