

**PNEUMOCOCCAL VACCINE**(preventable pneumonia) is a lung disease caused by streptococcus pneumoniae bacteria that can infect the upper respiratory tract and can spread to the blood, lungs, middle ear or nervous system. Pneumonia is a leading cause of vaccine-preventable illness and death in the United States. Pneumonia can be spread from person to person through close contact. The elderly is especially at risk of becoming seriously ill and dying from this disease. People who smoke cigarettes, those with certain medical conditions such as chronic heart, lung, liver diseases or sickle cell anemia, asplenia, and HIV are at increased risk for getting pneumococcal pneumonia.

The pneumococcal polysaccharide vaccine protects against the 23 most common types of streptococcus pneumoniae bacteria (PPSV23). The pneumonia (pneumococcal) conjugate vaccine protects against 13 types of streptococcus pneumoniae bacteria (PCV13), including those most likely to cause serious disease. New recommendations state that two doses (one polysaccharide and one conjugate) of pneumonia vaccine are needed. Under some circumstances additional doses may be recommended.

A second dose of PPSV23 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, or multiple myeloma.
- Have kidney disease.
- Have had an organ or bone marrow transplant.
- Are taking medication that lowers immunity (such as chemotherapy or long-term steroids).

If the patient is **less** than 65 years old and has received PPSV23, the second dose should be given 5 years after the first dose.

If the patient is 65 years and older who has never received either pneumonia vaccine, PCV13 vaccine should be given, then 12 months later PPSV23 vaccine should be given.

If the patient is 65 years and older who has received PPSV23 vaccine, PCV13 should be given at least 12 months later. A second dose of PPSV23 should be given 12 months after the PCV13 dose and 5 years after the most recent PPSV23 dose.

#### **WHO SHOULD GET THE PNEUMOCOCCAL PNEUMONIA VACCINE?**

1. People 65 and older should get a dose even if they have gotten one or more doses of the vaccine before they turned 65.
2. Adults ages 19-64 who smoke or have asthma.
3. Anyone ages 2-64 who has a long-term health problem such as heart or lung disease, diabetes, sickle cell disease, alcoholism, cirrhosis, cerebrospinal fluid leaks or cochlear implant.
4. Anyone ages 2-64 who has a disease or condition that lowers the body's resistance to infection, such as Hodgkin's disease, lymphoma or leukemia, kidney failure, multiple myeloma, nephrotic syndrome, HIV infection or AIDS, damaged spleen, or no spleen, or organ transplant.
5. Anyone ages 2-64 who is taking a drug or treatment that lowers the body's resistance to infection, such as long-term steroids, certain cancer drugs, or radiation therapy.

#### **WHAT ARE THE SIDE EFFECTS OF THE PNEUMOCOCCAL PNEUMONIA VACCINE?**

Mild-to-moderate problems: soreness, redness, or swelling where the shot was given, fever, muscle aches, and drowsiness.

Severe problems (rare) including allergic reactions: difficulty breathing, wheezing, hives, pale skin, fast heartbeat, and dizziness.

## REFERENCES

Centers for Disease Control and Prevention. *Epidemiology and Prevention of Vaccine-Preventable Diseases*. Hamborsky J, Kroger A, Wolfe S, eds. 13th ed. Washington D.C. Public Health Foundation, 2015.

<http://www.cdc.gov/vaccines/pubs/pinkbook/index.html>, for more vaccine information.

Vaccine Information Statement: *Pneumococcal Polysaccharide Vaccine (What You Need to Know)*. Centers for Disease Control and Prevention (CDC). April 25, 2015. <http://www.cdc.gov/vaccines/hcp/vis/vis-statements/ppv.html>. Accessed July 2015.

Vaccine Information Statement: *Pneumococcal Conjugate Vaccine (PCV13) (What You Need to Know)* Centers for Disease Control and Prevention (CDC). November 5, 2015. <http://www.cdc.gov/vaccines/hcp/vis/vis-statements/pcv13.html>. Accessed July 2015.