

Understanding Pneumococcal Disease



Pneumococcal Disease and Influenza (Flu)

- Pneumococcal disease can cause pneumonia, meningitis, and sepsis, and is a common and serious complication of flu
- The best way to protect against both pneumococcal disease and flu is through vaccination, which can help to reduce severity of illness and death in the event of infection
- While pneumococcal disease can occur at any time of the year, flu season is also a good time to make sure you are up to date on pneumococcal vaccination

The Impact of Pneumococcal Disease

- Historically, invasive pneumococcal disease (bacteremia and meningitis) was most common in infants and young children, but because pneumococcal vaccination has been very effective in preventing invasive pneumococcal disease in children, about 90% of invasive pneumococcal disease in the US now occurs in individuals age 18 years and older¹
- Most (>95 percent) pneumococcal deaths in the US occur in adults¹
- Pneumococcal meningitis can cause lifelong complications such as hearing loss, seizures, blindness, and paralysis
- Sepsis is common among patients hospitalized with pneumococcal pneumonia

Pneumococcal Disease Symptoms

Pneumococcal disease can strike quickly and without warning. Depending on whether the infection causes pneumonia, sepsis, or meningitis, individuals may experience some combination of the following:



Very sudden onset of high fever, chills, cough, shortness of breath, chest pain, stiff neck, and disorientation



Symptoms may be less specific in older adult patients. Older patients may experience confusion or lack of alertness.²

Pneumococcal Vaccination

- Pneumococcal vaccination is recommended for³:
 - Adults age 65 years and older
 - Infants and toddlers younger than 2 years old
 - Individuals age 2 through 64 years with certain medical conditions
- Vaccination reduces the chances of becoming infected with pneumococcal bacteria and is associated with improved survival, reduced chances of respiratory failure or other complications, and shorter in-patient stays for adults hospitalized with community-acquired pneumonia caused by pneumococcal disease⁴

References

1. Centers for Disease Control and Prevention. Pneumococcal Disease. Fast Facts. www.cdc.gov/pneumococcal/about/facts.html#ref1. Accessed September 20, 2019.
2. Centers for Disease Control and Prevention. Pneumococcal Disease. Symptoms and Complications. www.cdc.gov/pneumococcal/about/symptoms-complications.html. Accessed September 20, 2019.
3. Centers for Disease Control and Prevention. Vaccine Recommendations and Guidelines of the ACIP. Pneumococcal ACIP Vaccine Recommendations. www.cdc.gov/vaccines/hcp/acip-recs/vacc-specific/pneumo.html. Accessed September 20, 2019.
4. Fisman DN, Abrutyn E, Spaude KA, et al. Prior pneumococcal vaccination is associated with reduced death, complications, and length of stay among hospitalized adults with community-acquired pneumonia. *Clinical Infectious Diseases*, 2006;42:1093-1101.



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www.nfid.org/pneumococcal

Pneumococcal Vaccination continued

- There are two types of pneumococcal vaccines currently recommended in the US: pneumococcal conjugate vaccine (PCV13) and pneumococcal polysaccharide vaccine (PPSV23)⁵
- Both pneumococcal vaccines are safe and effective, but side effects can occur. Most side effects are mild such as arm swelling or soreness, and last one or two days⁵

Pneumococcal Vaccine Recommendations for Children and Adults

Children

PCV13

- All children younger than age 2 years should receive the pneumococcal conjugate vaccination (PCV) series

PPSV23

- Children and adolescents age 2 years and older also need a polysaccharide vaccine (PPSV) if they have any of the following:
 - Lung, heart, liver, or kidney disease; asthma; diabetes; or sickle cell disease
 - Conditions that weaken the immune system, such as HIV/AIDS, cancer, or damaged/absent spleen
 - Cochlear implants or cerebrospinal fluid (CSF) leaks

Adults

PCV13 and PPSV23

- All adults age 65 years and older should talk to a healthcare professional about which vaccines they need
- Adults age 19–64 years with any of the following:
 - Conditions that weaken the immune system, such as chronic kidney disease, HIV/AIDS, lymphoma, leukemia, Hodgkin's disease, damaged/absent spleen; on steroids or other immunosuppressive therapy
 - Cochlear implants or cerebrospinal fluid (CSF) leaks

PPSV23

- Adults age 19–64 years with any of the following conditions: asthma; diabetes; lung, heart, or liver disease; or alcoholism
- Adults age 19–64 years who smoke cigarettes
- Adults age 19–64 years who reside in chronic-care or long-term care facilities
- All adults age 65 years and older

For more information about pneumococcal disease prevention visit:
www.nfid.org/pneumococcal and www.cdc.gov/vaccines/vpd/pneumo/

References

5. Centers for Disease Control and Prevention. Adults: Protect Yourself with Pneumococcal Vaccines. www.cdc.gov/features/adult-pneumococcal/. Accessed August 12, 2019; Centers for Disease Control and Prevention. Pneumococcal Vaccine Side Effects. www.cdc.gov/vaccinesafety/vaccines/pneumococcal-vaccine.html. Accessed September 20, 2019.



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