



## FACT SHEET

### Pneumococcal disease in adults

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#### What is Pneumococcal disease?

- Pneumococcal disease refers to infections caused by the bacterium *Streptococcus pneumoniae*, also called the pneumococcus.
- Pneumococcal disease is the leading cause of death from vaccine-preventable bacterial disease in the United States.
- Serious illnesses caused by the pneumococcus include pneumonia (infection of the lungs), blood stream infections and meningitis (infection of the lining of the brain and spinal cord).

**Pneumococcal pneumonia** is the most common type of bacterial pneumonia acquired in the community. Death rates for pneumococcal pneumonia in adults are 15-20% and as high as 40% among elderly patients.

- Pneumococcal pneumonia is especially severe in adults over 65 years of age and in persons of any age who have chronic medical problems such as asthma, chronic obstructive pulmonary disease, heart disease including congestive heart failure, diabetes, alcohol abuse, kidney failure, cancers, and weakened immune systems from disease or drug treatment.
- Pneumococcal pneumonia is also more common in smokers and persons with HIV-infection.

**Pneumococcal meningitis** – *S. pneumoniae* is the leading cause of bacterial meningitis among children and adults in the United States. Death rates from pneumococcal meningitis are approximately 20-50% in adults. Pneumococcal meningitis can result in permanent damage to the brain and nervous system, learning deficits and deafness.

- Severe pneumococcal infections are more common in adults over 65 years of age and children less than 2 years.
- Persons with underlying medical conditions such as sickle cell disease, HIV infection, and those with no or poorly functioning spleens.
- Black persons, Alaskan Natives and American Indians.

#### What are the symptoms?

- Symptoms vary according to the type of pneumococcal infection. If you think you may have a serious infection, see your health care provider right away.
  - **Pneumonia** causes fever, difficulty breathing, cough and chest pain.
  - **Meningitis** causes fever, sleepiness or irritability, headache, vomiting, seizures, and loss of consciousness.

#### How is it spread?

- The bacteria spreads from person to person through secretions from the nose, mouth and throat.
- Although the bacteria can spread from person to person, pneumococcal disease does not usually occur in contacts of ill persons. And no special treatment of contacts of persons with pneumococcal infection is necessary.

#### Diagnosis and treatment

- Health care providers diagnose pneumococcal infection by physical examination and taking samples of blood or spinal fluid for culture. A chest X-ray is used to diagnose pneumonia.
- Treatment of mild infections can be done outside of the hospital using oral antibiotic drugs but severe infections require hospitalization and antibiotic drugs by vein.

#### Prevention

- Until recently, pneumococcal infection could be treated effectively with antibiotics. Many pneumococcal bacteria are now becoming resistant to commonly used antibiotics making treatment more difficult. For this reason, it is desirable to prevent pneumococcal infections through vaccinations, rather than depend on antibiotic treatment after infection occurs.
- When your doctor prescribes antibiotics to you for any reason, make sure the medicine is taken exactly as it was prescribed and finish all of it. Never take antibiotics unless prescribed by your doctor and try to avoid unnecessary antibiotic treatments whenever possible. This will help avoid developing drug-resistant pneumococcal infections.

## **Pneumococcal vaccines**

There are over 90 different types of pneumococcal bacteria, called serotypes. Most serious pneumococcal infections in adults are caused by 23 serotypes contained in the pneumococcal polysaccharide vaccine.

**Pneumococcal 23-valent polysaccharide** vaccine protects against serious infection caused by 23 pneumococcal serotypes and is effective in adults and children at least 2 years of age. This vaccine is recommended for:

- All adults age 65 years or older
- Adults of any age (and children age 2 years and older) who have chronic illnesses such as cardiovascular disease, pulmonary disease including, asthma, diabetes, alcoholism, cirrhosis or spinal fluid leaks, or who are immunocompromised due to no or poorly functioning spleen, sickle cell, Hodgkin's disease, lymphoma, or multiple myeloma, chronic renal failure, nephritic syndrome or HIV infection.

**Pneumococcal protein conjugate vaccine** is a new vaccine not licensed for use in adults but that is available to prevent severe pneumococcal infections in children.

## **Who should be vaccinated?**

- Most persons will require the 23-valent pneumococcal polysaccharide vaccine only once.

- Routine revaccination is not recommended for people with healthy immune systems who receive the 23-valent polysaccharide vaccine. However, it is not harmful (and is recommended) to give a dose of vaccine to people with unknown vaccination history.
- Revaccination is recommended for people 2 years and older who are at highest risk of disease and who are more likely to experience rapid declines in vaccine induced antibody, including those with functional or anatomic asplenia (e.g., sickle cell disease or splenectomy), HIV infection, leukemia, lymphoma, Hodgkin's disease, multiple myeloma or generalized malignancy, chronic renal failure or nephritic syndrome, organ or bone marrow transplantation or receiving immunosuppressive chemotherapy, including long-term systemic corticosteroids.

**Report all cases to El Paso Department of Public Health by calling 915-771-5810**