Pneumonia



Self-study course



This brochure is available in alternate formats. Call 1-800-282-8096 (V/TTY)

Course objectives:

At the end of this course you will be able to:

- 1) Identify a series of steps your body goes through to provide immunity against vaccine preventable diseases.
- 2) Identify what pneumonia is.
- 3) Identify the symptoms of pneumonia.
- 4) Identify who should be vaccinated.

Pneumonia self-study

Your need for immunizations does not end when you reach adulthood. Getting immunized is a lifelong, life protecting community effort regardless of age, sex, race, ethnic background or country of origin. Recommended vaccinations begin soon after birth and continue throughout life. The specific immunizations you need as an adult are determined by factors such as your age, lifestyle, type and location of travel, overall health and previous immunizations.

Immunizations, also called vaccinations, help protect you from disease. Most vaccine preventable diseases are caused by germs that are called "viruses" or "bacteria." Vaccines to help prevent these diseases generally contain weakened or killed viruses or bacteria specific to the disease. Vaccines help your body recognize and fight these germs and protect you each time you come in contact with someone who is sick with any of these diseases.

There are a series of steps that your body goes through in fighting these diseases; first, a vaccine is given by a shot or a nasal spray, second, over the next few weeks the body makes antibodies and memory cells against the weakened or dead germs in the vaccine, third, the antibodies fight the real disease germs if the person is exposed to the germs and they invade the body. The antibodies will help destroy the germs and the person will not become ill. Sometimes an immunization does not completely prevent the disease, but it will significantly reduce its severity. Finally, antibodies and memory cells stay on guard in the body for years after the vaccination to safeguard it from the real disease germs.

Most vaccines are given to babies and young children, but some are needed throughout your lifetime to make sure you stay protected. This protection is called immunity.

Getting immunized is important for at least two reasons: to protect yourself and to protect those around you. A successful vaccination program depends on the cooperation of every person.

In the U.S., vaccines have reduced or eliminated many infectious diseases that once routinely killed or harmed many infants, children and adults. However, the viruses and bacteria that cause vaccine preventable disease and death still exist and can be passed on to people who are not protected by vaccines. Even though some diseases, such as polio, rarely affect people in the U.S., these diseases still exist in other countries. Travelers can unknowingly bring these diseases into the U.S. and infect people who have not been immunized. Without the protection from immunizations, diseases could be imported and could quickly spread through the population, causing epidemics. Non-immunized people living in healthy conditions are not protected from disease; only immunizations prepare the immune system to fight disease organisms.

What is pneumonia?

Pneumonia is a general term for a lung infection that can make it hard for you to breathe. In most people it is easily treated at home and does not cause permanent lung damage. However, in adults older than 65, infants, and people who have other diseases, especially lung diseases such as chronic obstructive pulmonary disease (COPD), it can be serious and may need to be treated in the hospital. Mild cases of pneumonia are often called walking pneumonia.

Pneumonia is a respiratory infection most often caused by a bacterial infection but the second leading cause are viruses. Pneumonia can be a relatively mild illness that is hardly noticed. In young healthy people, recovery may take two to three weeks. Recovery may take six to eight weeks or longer in older adults and those who have other health problems. The time between infection and the appearance of symptoms can be as little as one to three days or as long as seven to 10 days.

The course of pneumonia depends on several factors including:

- Age and health of the person. Older, sicker people usually have more severe cases and are more likely to have complications from pneumonia.
- Cause of infection (type of organism). Viral pneumonia usually is less severe than most forms of bacterial pneumonia.
- How quickly the pneumonia is treated. The sooner pneumonia is treated the sooner symptoms go away.
- State of the immune system. People who have impaired immune systems are more likely to have more severe cases of pneumonia than people who have healthy immune systems.

Symptoms

People who have bacterial pneumonia usually are very sick. Symptoms of bacterial pneumonia usually begin suddenly and often develop during or after an upper respiratory infection, such as influenza or a cold. The following symptoms are common:

- Cough, often producing discolored mucus (sputum) from the lungs. Sputum may be rusty or green or tinged with blood
- Fever, which may be less common in older adults
- Shaking, "teeth chattering" chills (either a single episode of many)
- Rapid, often shallow, breathing and the feeling of being short of breath
- Chest wall pain that is often made worse by coughing or breathing in
- Rapid heartbeat
- Fatigue or vague feeling of weakness (malaise)

Older adults may have milder symptoms, such as a dry (nonproductive) cough. Sometimes there may be no fever. A change in mental status (confusion or delirium) or worsening of an underlying lung disease may be the major sign of pneumonia in older adults.

Symptoms of viral pneumonia are often less obvious, less severe and come on gradually. Viral pneumonia often goes unrecognized because the person may not appear very ill. The symptoms vary with age and whether the person has other health problems.

Diagnosis

To diagnose pneumonia, your doctor will usually ask questions about your medical history and do a physical exam plus a chest X-ray. Based on what the history, exam, and chest X-ray show, your doctor may begin treatment right away, without doing other tests. Your doctor may also look at mucus from your lungs to find out what organism is causing pneumonia. Identifying the type of organism helps your doctor choose the best drug to treat the infection.

Treatment

Antibiotics are used to treat pneumonia. A doctor chooses an antibiotic after considering several factors, including your age, symptoms, the severity of the illness, other medical problems, how likely it is that a certain antibiotic will kill the bacterial, and whether you are allergic to any antibiotics. Often the antibiotic used will be one that is effective against a wide range of bacteria (known as a broad spectrum antibiotic). Antibiotics are usually given for seven to 14 days. An inhaled medication called a bronchodilator may be used to open airways and make breathing easier. Improvement in symptoms is usually seen in two to three days.

The vaccine

The vaccine for pneumonia is called the pneumococcal vaccine. It consists of inactivated vaccine (containing killed bacteria which can cause pneumonia) that is given with a needle, usually in the arm. There is no "pneumonia" season like there is for the flu; therefore, you can get the pneumococcal vaccine any time during the year. You don't have to wait until the "flu season" before becoming immunized.

Who should be vaccinated?

A pneumococcal vaccine is recommended for people:

- Older than 65 years of age
- Ages 2 to 64 who are at increased risk of getting pneumococcal pneumonia because of a long term (chronic) illness, especially heart disease and lung disease (except asthma). If you have asthma, your doctor may recommend that you receive the vaccine if he or she feels you are at increased risk of having complications if you get pneumonia.
- Ages 2 to 64 who do not have a working spleen
- Ages 2 to 64 who live in an environment or social setting that puts them at increased risk for pneumonia or its complications (congregate housing)
- Ages 2 to 64 who have impaired immune systems.

Healthy older adults need only one shot for lifetime protection. People with one or more chronic medical problems are encouraged to have the vaccine every five to six years. If you have any questions please check with your health care professional.

Pneumonia prevention

A good way to minimize your chances of getting pneumonia is to be immunized, but good health habits are other measures that can help protect you. By doing the following you can reduce your exposure to and chances of getting pneumonia:

- Avoid close contact with people who are sick. When you are sick, keep your distance from others to protect them from getting sick too.
- Stay home when you are sick. If possible, stay home from work, school, and errands when you are sick. You will help prevent others from catching your illness.
- Cover your mouth and nose. Cover your mouth and nose with a tissue when coughing or sneezing. It may prevent those around you from getting sick.
- Wash your hands. Washing your hands often with soap and water will help protect you from getting and spreading germs. If you are not near water, use an alcohol-based hand cleaner.
- Avoid touching your eyes, nose or mouth. Germs are often spread when a person touches something that is contaminated with germs, and then they touch his or her eyes, nose or mouth.

Disease prevention is the key to both personal and public health. It is always better to prevent a disease than it is to treat it. Vaccines prevent disease in the people who receive them and protect those who come into contact with unvaccinated individuals. Vaccines can help prevent infections and in turn can save lives. Protect yourself and those around you by getting vaccinated today.

NOTES:

Seniors and People with Disabilities

Oregon Department of Human Services 500 Summer St. NE, E13 Salem, Oregon 97301-1073

Phone: 1-800-232-3020 V/TTY

V/TTY: 503-945-5811 Fax: 503-378-8966

