Respiratory Problems
Facts, treatments & support

Brought to you by Alliance Health.

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GET THE FACTS ABOUT RESPIRATORY PROBLEMS

Your respiratory system is made up of your lungs, airways, and the respiratory muscles that control the movement of air into and out of your body. Respiratory disease or other issues can occur in any area of the respiratory system.

This guide is designed to give you information about the different types of respiratory problems, their symptoms, causes and risk factors, as well as available treatments to help you in conversations with your doctor.

RESPIRATORY CONDITIONS

Although there are a number of respiratory diseases, the most commonly diagnosed is asthma, which affects over 300 million people worldwide. Other diseases and conditions which can cause respiratory issues include allergies, respiratory tract infections, pneumonia, chronic obstructive pulmonary disease (COPD), and sleep apnea.

DISORDERS OF THE RESPIRATORY SYSTEM CAN BE CLASSIFIED INTO FOUR GROUPS:

- **Obstructive conditions** such as asthma, emphysema, and bronchitis
- **Vascular diseases** such as edema, pulmonary embolism, or hypertension
- **Restrictive conditions** such as fibrosis and sarcoidosis
- **Infectious and environmental disorders** such as pneumonia, tuberculosis, and allergic reactions

WHY COUGHING IS GOOD FOR YOU

Coughing can be a nuisance, but if you feel the urge to cough you should do it! Coughing is the body’s way to remove dust, mucus, or other irritants from the lungs, and avoiding that cough can lead to infection.
CAUSES AND RISK FACTORS OF RESPIRATORY DISORDERS

Causes of respiratory disorders vary widely, depending on the disorder diagnosed. Possible disorders and their causes are listed below.

ASTHMA
Asthma is a chronic disease which affects the airways that carry air in and out of the lungs. In an individual with asthma, these airways are inflamed, causing them to become narrow and restricting the flow of air to the lungs.

Asthma attacks can be triggered by any of a number of stimuli, including:
- Allergens such as pollens, foods, dust, mold, or animal dander
- Irritants in the air such as dirt, cigarette smoke, gases and air pollution
- Household chemicals such as cleaners, perfumes, paints, varnishes, fabric softeners, laundry detergents and cooking fumes
- Irritants in the workplace such as fumes and vapors
- Respiratory infections such as colds, flu, sore throat and bronchitis
- Intense physical exertion
- Emotional duress such as stress, fear or excitement
- Change in weather conditions
- Medications such as aspirin or other painkillers, as well as some drugs used to treat glaucoma and high blood pressure

CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)
Chronic obstructive pulmonary disease (COPD) is a lung disease most commonly caused by smoking. COPD damages the lungs, causing the airways to become inflamed and the alveoli to lose their shape and elasticity. This makes breathing difficult.

COPD is the fourth leading cause of death in the United States. Emphysema and chronic bronchitis are considered a part of the COPD umbrella.

While smoking is the most common cause of COPD, other things which may irritate the lungs and contribute to COPD include:
- Work which requires prolonged exposure to certain kinds of chemicals, dust, or other harmful particles
- Heavy, prolonged exposure to air pollution
- Exposure to secondhand smoke

PNEUMONIA
Pneumonia is an infection of the lungs caused by a build up of fluid in the lung’s air sacs. This build up reduces the amount of oxygen delivered to the blood, resulting in a tremendous strain on the heart and lungs.
Pneumonia is caused by a number of factors, including:

- Viruses. About half of pneumonias are caused by viruses. Viral pneumonia tends to begin with flu-like signs and symptoms. It usually starts with a dry (nonproductive) cough, headache, fever, muscle pain and fatigue.

- Mycoplasma. These tiny organisms cause signs and symptoms similar to those of other bacterial and viral infections, although symptoms appear more gradually and are often mild and flu-like. This type of pneumonia is often called walking pneumonia. Mycoplasma pneumonia spreads easily in situations where people congregate and is common among schoolchildren and young adults.

- Fungi. Certain types of fungus also can cause pneumonia, although these types of pneumonia are much less common.

- Pneumocystis carinii. Pneumonia caused by P. carinii is an opportunistic infection that affects people living with AIDS. People whose immune systems are compromised by organ transplants, chemotherapy, or treatment with corticosteroids or other immune-suppressing drugs such as tumor necrosis factor (TNF) inhibitors also are at risk.

**SLEEP APNEA**

Sleep apnea is a disorder characterized by pauses—or apneas—in breathing during sleep. Sleep apnea can cause or aggravate a number of other conditions, including:

- High blood pressure
- Heart attack
- Stroke
- Obesity
- Diabetes
- Depression and anxiety

Untreated sleep apnea can also increase the risk for heart failure and irregular heartbeats in addition to significantly increasing the risk of work-related or driving accidents.

Sleep apnea can occur in anyone, but is generally found in older individuals, and most often occurs in individuals who are overweight.

**WHAT CAN I DO TO HELP PREVENT RESPIRATORY PROBLEMS?**

1. Quit smoking
2. Exercise regularly
3. Get sufficient amounts of sleep
4. Avoid prolonged exposure to dust, fumes, and chemicals
5. Eat a healthy diet

**DIAGNOSING RESPIRATORY PROBLEMS**

How your respiratory issue is diagnosed depends on your symptoms, environment, and any other medical conditions you may be suffering from. In order to diagnose what is causing your respiratory issues, your doctor will likely take a full medical history and do a complete physical examination.

**The physical examination may include:**

- Chest x-rays
- Blood tests
- Sputum (mucus) tests and analysis
- Pulmonary function tests
- Computed tomography scans
- Biopsy of the lung or pleura
TREATING RESPIRATORY PROBLEMS

Treatment of respiratory disease depends on what problem has been diagnosed, the severity of disease, and your overall lifestyle.

THE FOLLOWING TREATMENTS CAN BE USED FOR RESPIRATORY DISEASES:
Medications are often administered in an inhaled form, and can include:
• Corticosteroids
• Bronchodilators
• Antibiotics
• Anticoagulants
• Immune suppressants

OXYGEN AND MECHANICAL VENTILATION
Oxygen and mechanical ventilation are often prescribed to ease symptoms such as shortness of breath. In more severe cases such as some cancers or advanced lung disease, other treatments can also be prescribed, such as radiotherapy, surgery including lobectomy or pneumonectomy, and lung transplantation.

WHAT SUPPLIES ARE AVAILABLE TO TREAT RESPIRATORY PROBLEMS?
Which supplies are appropriate for you depends on what specific respiratory problem you are suffering from. Your doctor can help to determine what treatment is best for you.

Available treatments include:
Nebulizers. Vital to the well-being and recovery from a number of respiratory system diseases and chronic respiratory system conditions, nebulizers convert liquid medication into a fine mist that can be inhaled.

Humidifiers and vaporizers help respiratory disease patients by keeping respiratory system tissue moist and by filtering out harmful bacteria, mold and spores.

Oxygen concentrators enable respiratory care patients who need additional oxygen by trapping nitrogen contained in the air and concentrating the oxygen that is delivered. Portable oxygen concentrators allow respiratory care patients increased mobility and a better quality of life.

Air purifiers and air cleaners are important equipment for anyone suffering from asthma, allergies or any other respiratory disease or respiratory condition. Air purifiers and cleaners remove bacteria, and mold. Air purifiers can aid recovery and reduce symptoms.

Peak Flow Meters. Asthmatics and others with difficulty breathing due to respiratory disease or a chronic respiratory condition use peak flow meters to monitor their respiratory condition and track breathing efficiency. Peak flow meters measure how fast air can be expelled from the lungs. A decrease in normal peak flow is a warning to respiratory care patients to administer appropriate respiratory therapy or to seek respiratory care medical help.