



## Respiratory System Disorder:

The respiratory system is a set of organs and accessory structures that allow the body to bring oxygen in and then exchange the oxygen for carbon dioxide. Oxygen is carried through- out the body and carbon dioxide is released from the body.

The lungs are a pair of organs in the chest that supply the body with oxygen and remove carbon dioxide from the body. Lungs sit on each side of the chest and are separated by the mediastinum. The mediastinum is the area between the lungs in the center of the chest.

The respiratory system mainly consists of the upper respiratory tract, alveoli, bronchi, bronchioles, trachea, pleura, and pleural cavity. The common cold is an example of a mild respiratory disorder and other serious and life-threatening respiratory disorders include pneumonia, lung cancer and asthma, influenza, tuberculosis, etc.

## What are Respiratory Diseases?

- Respiratory diseases are illnesses that affect the organs and tissues in the lungs and airway systems, making gas exchange and breathing difficult.
- The airway systems start from the nose, lead to the large and small wind pipes and reach the lungs. These systems are divided into upper and lower respiratory systems.
- Respiratory conditions include acute respiratory infections as well as chronic respiratory diseases.
- Most common respiratory diseases include influenza, pneumonia, asthma, bronchitis,

chronic obstructive airways disease (COAD) and lung cancer.

## Factors Affecting Respiratory System Disorders

There are several factors associated with respiratory system disorders. A few of these factors include:

1. Genetics
2. Allergies
3. Smoking
4. Air Pollution
5. Bacterial and viral infections.

## Types of Respiratory System Disorders

There are three main types of respiratory diseases:

### Airway Disease

It affects the bronchial tubes which function by transporting oxygen and other gases in and out of the lungs. In airway disease, the passage for air is reduced, which is associated either with narrowing or blocking of bronchial tubes.

### Lung Tissue Disease

Human lungs are covered by a thin tissue layer called the pleura. Due to certain viral or bacterial infections, the structure of the lung tissues is affected, which results in scarring or inflammation of the tissue that enables the lungs to expand normally and in turn, makes breathing difficult.

### Lung Circulation Disease

This disorder occurs when the blood vessels of the lungs are coagulated, swollen or damaged. This affects the ability of the lungs to receive oxygen and release carbon dioxide. In extreme cases, this disorder may affect the functioning of the heart.

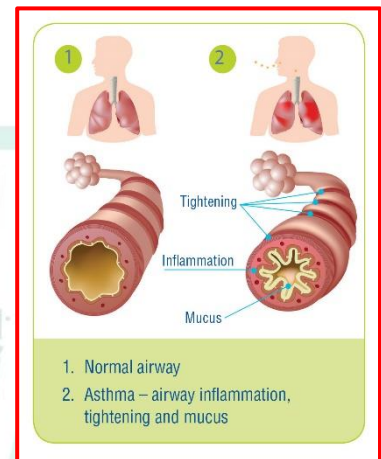
## The major respiratory disorders or diseases:

### Asthma

The lungs' bronchi and bronchioles are affected by the chronic illness known as asthma. Breathing becomes difficult, and there's a wheezing sound made while breathing, along with a severe cough and restlessness.

Asthma may result from the following causes:

- Cold air
- Airborne allergens
- Respiratory infections
- Physical activity
- Air pollutants

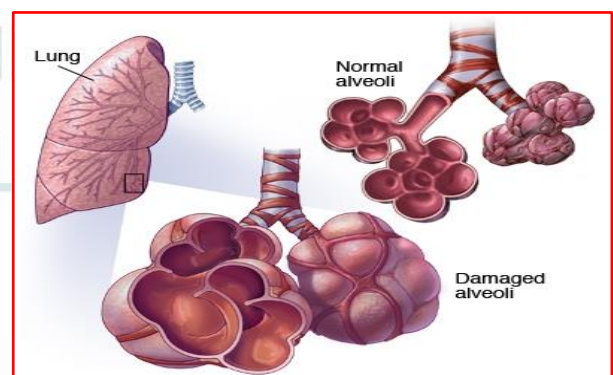


### Chronic Obstructive Pulmonary Disease (COPD)

This covers all respiratory conditions that result in dyspnea or difficulty exhaling. People who have been exposed to smoke are primarily affected. This is a grave illness that gets worse even when you quit smoking.

### Emphysema

Emphysema is a long-term illness characterized by a decrease in the respiratory surface as a result of lung alveolar wall damage. The primary cause of it is smoking cigarettes. The two primary signs of **emphysema are coughing** and shortness of breath. Lung elasticity may be lost as a result of emphysema.



Emphysema may be caused by the following factors:

- Dust Chemicals
- Air pollution
- Smoking tobacco
- Exposure to passive cigarette smoking.

### Occupational Respiratory Disorder:

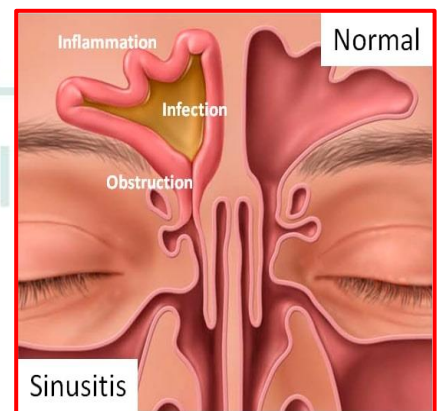
Any condition affecting the respiratory system as a result of prolonged exposure to dust, chemicals, or proteins is referred to as an occupational respiratory disorder. For example, breathing in asbestos dust can lead to asbestosis.

Occupational respiratory disorders might happen due to the inhalation of the following substances:

- Fumes from metals.
- Smoke from burning organic materials.
- Sprays of varnish, paint, acids, and pesticides.
- Dust from cotton, silica, coal, drug powders and pesticides.
- Gases from industries. For instance, Ammonia, chlorine and nitrogen oxides.

### Sinusitis (sinus infection)

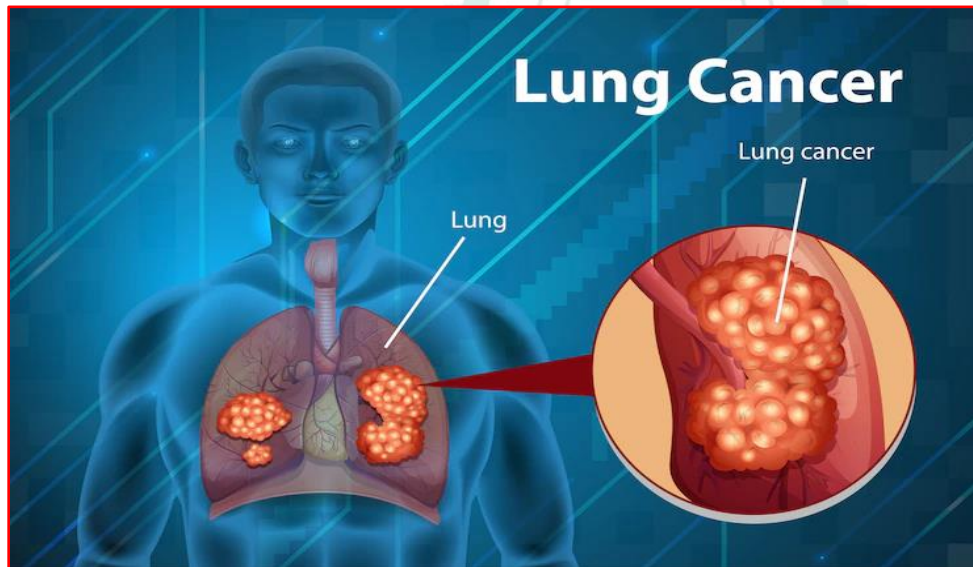
It is an inflammation of the nasal sinus mucous membranes. Mucus is secreted by the mucous membranes and enters the nasal cavities. Mucous membrane inflammation is brought on by certain airborne allergens, bacterial, or viral infections. Any condition affecting the respiratory system as a result of prolonged exposure to dust, chemicals, or proteins is referred to as an occupational respiratory disorder. For example, breathing in asbestos dust can lead to asbestosis.





## Lung cancer

Lung cancer can develop in any part of the lungs. It occurs in the main part of the lungs. The treatment of lung cancer depends upon the type, location and its spread.



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