

Respiratory structures such as the airways, alveoli and pleural membranes may all be affected by various disease processes

These respiratory diseases include:

- 1. Infections
- 2. Obstructive disorders
- 3. Restrictive disorders

4. Cancers Inhaled particles function.

GENERAL SYMPTOMS OF RESPIRATORY DISEASE

***** Hypoxia

* **Hypoxemia**

- * Hypercapnia
- * Hypocapnia
- **☼ Dyspnea**
- * Tachypnea
- membranes due to poor oxygenation of the blood

* Hamonaysis: Blood in the soutum

RESPIRATORY INFECTIONS

Infections of the respiratory tract can occur in:

- 1.
- 2.
- 3.

Organisms capable of infecting respiratory structures include:

- 1
- 2.

3.

Depending on the organism and extent of infection, the manifestations can range from mild to severe and even life threatening.

OBSTRUCTIVE RESPIRATORY DISORDERS

Bronchial asthma

A key component of asthma appears to be airway "hyper reactivity" in affected individuals. Exposure to certain "triggers" can induce marked bronchospasm and airway inflammation in

Bronchial asthma

antibody IgE

Exposure to a trigger such as pollen

can be divided into an can,

Bronchial asthma

Why asthma makes it hard to breathe

Air enters the respiratory system from the nose and mouth and travels through the bronchial tubes.

In an asthmatic person, the muscles of the bronchial tubes tighten and thicken, and the air passages become inflamed and mucusfilled, making it difficult for air to move.

In a non-asthmatic person, the muscles around the bronchial tubes are relaxed and the tissue thin, allowing for easy airflow.



Normal bronchial tube

Source: American Academy of Allergy, Asthma and Immunology

Bronchial asthma

Clinical Classification of Asthma

- **► Mild intermittent**
- ▶ Mild persistent
- **►** Moderate persistent

▶ Severe persistent

Bronchial asthma

Manifestations of asthma:

×

×

x

x

x

×

Bronchial asthma

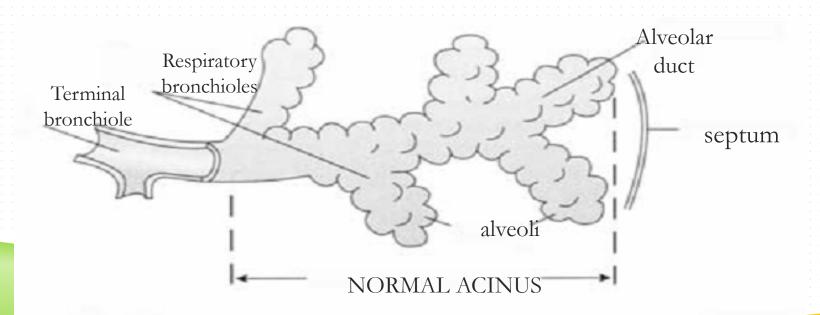
Treatment of asthma:

- Avoidance of triggers, and allergens
- Bronchodilators

dispenser or may be given subcutaneously. These drugs block bronchoconstriction but *do not* prevent the inflammatory response.

Obstructive Respiratory Disorders Emphysema

<u>destruction and permanent enlargement of terminal</u> <u>bronchioles and alveolar air sacs</u>



Obstructive Respiratory Disorders Emphysema

smokers

chronic cigarette

chronic inflammation of

the alveolar airways

enzyme macun

In fact, a rare form of emphysema occurs in individuals who are not cigarette smokers but who have a genetic lack of α-1-antitrypsin.

