

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
function.

Inhaled particles

GENERAL SYMPTOMS OF RESPIRATORY DISEASE

* Hypoxia

* Hypoxemia

* Hypercapnia

* Hypocapnia

* Dyspnea

* Tachypnea

* Cyanosis

membranes due to poor oxygenation of the blood

* Hemoptysis : Blood in the sputum

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

Obstructive Respiratory Disorders

Bronchial asthma



antibody IgE

▶ Exposure to a trigger such as pollen



can be divided into an early phase

Obstructive Respiratory Disorders

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 mucus-filled, 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.



Inflamed bronchial tube of an asthmatic

Normal bronchial tube

Obstructive Respiratory Disorders

Bronchial asthma

Clinical Classification of Asthma

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

- ▶ **Severe persistent**

Obstructive Respiratory Disorders

Bronchial asthma

Manifestations of asthma :

x

x

x

x

x

x

Obstructive Respiratory Disorders

Bronchial asthma

Treatment of asthma:

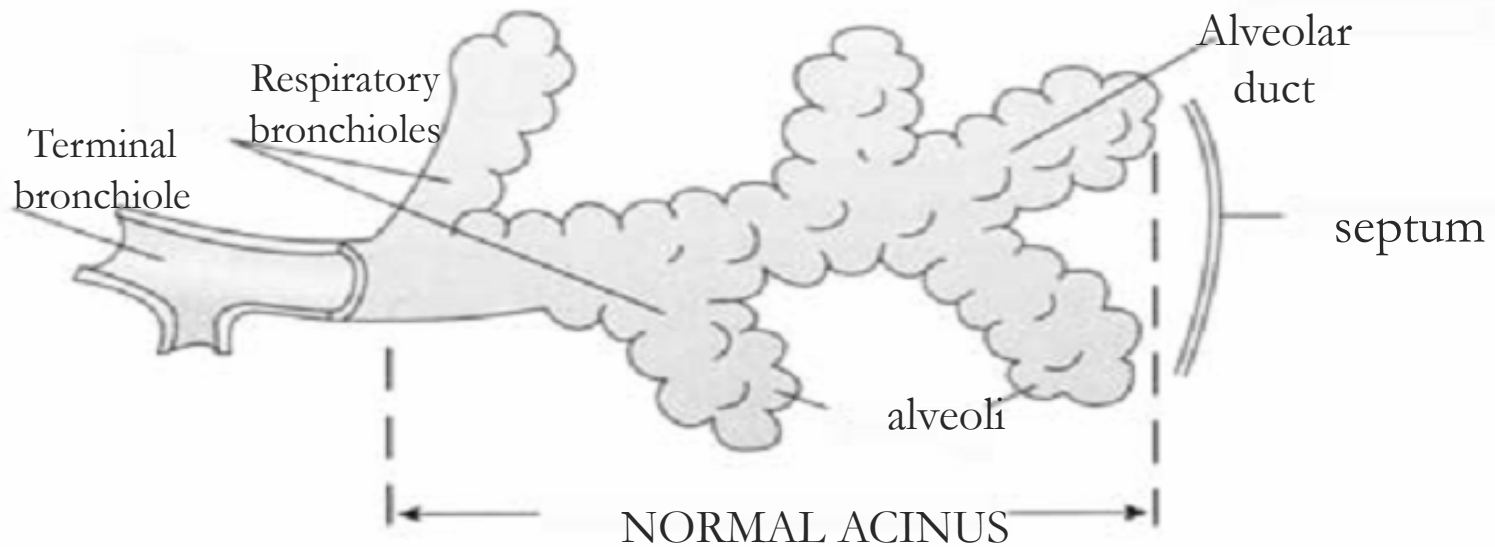
- ▶ Avoidance of triggers, and allergens
- ▶ *Bronchodilators*

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

Obstructive Respiratory Disorders

Emphysema

► *destruction and permanent enlargement of terminal bronchioles and alveolar air sacs*





▶ Interval exercises

▶ Relaxation techniques