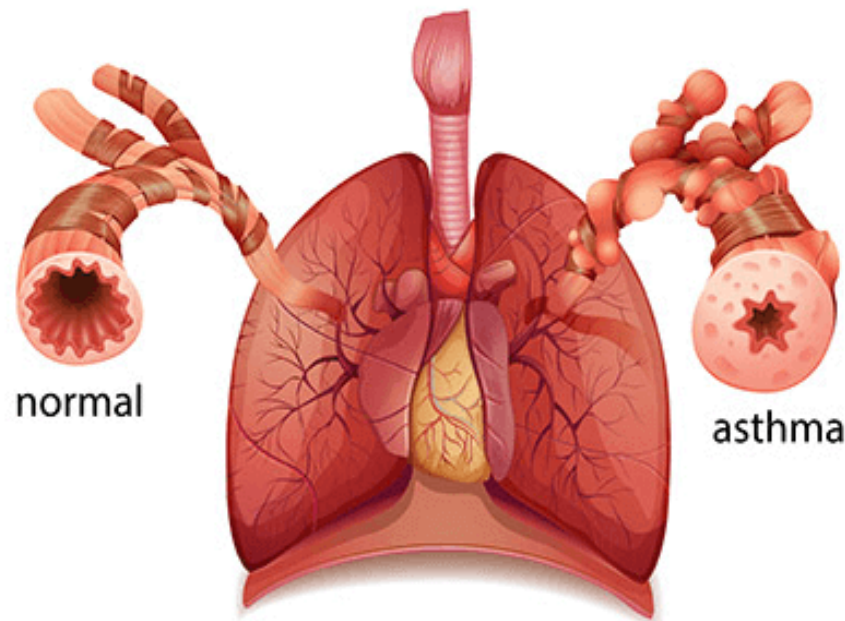


**Asthma** is a chronic respiratory condition characterized by inflammation and narrowing of the airways, which leads to difficulty breathing. In asthma, the muscles around the airways tighten, the lining of the airways swells, and more mucus is produced, further blocking airflow.

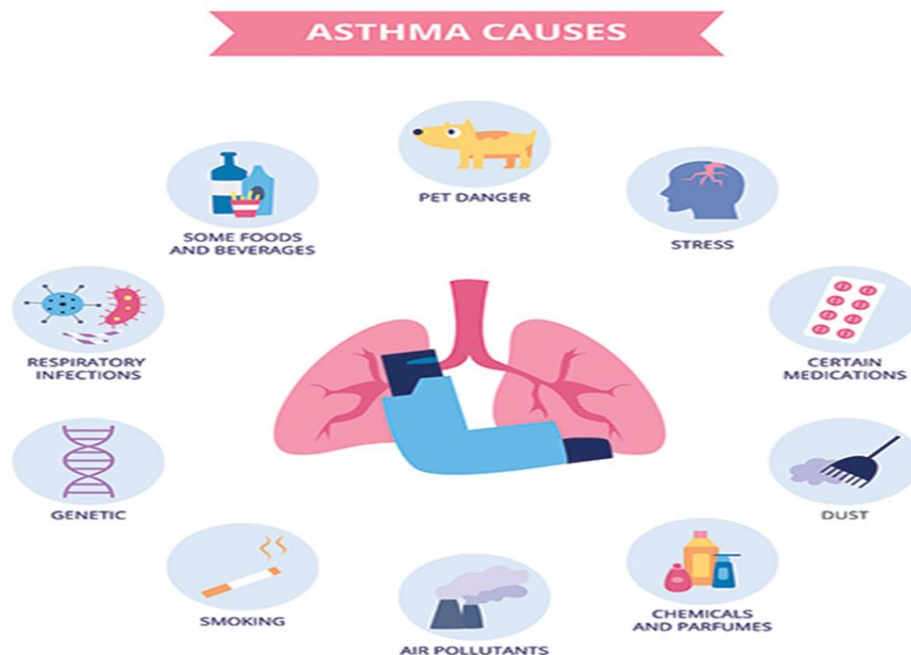
## Asthma - Inflamed Bronchial Tube



## Causes and Triggers

Asthma develops due to a combination of genetic and environmental factors, though the exact cause is not fully understood. Individuals with a family history of asthma, allergies, or other respiratory conditions are at higher risk. Common triggers include:

- Allergens: Pollen, pet dander, mold, dust mites.
- Irritants: Smoke, pollution, strong odors, chemicals.
- Respiratory Infections: Colds, flu, and sinusitis.
- Physical Activity: Exercise, especially in cold or dry air.
- Weather Conditions: Cold air, high humidity, and sudden temperature changes.
- Emotions and Stress: Anxiety or strong emotions can sometimes induce symptoms.



## Symptoms of Asthma

Symptoms can vary and may come on suddenly during an asthma attack. Common symptoms include:

- **Wheezing:** A whistling sound when breathing, especially while exhaling.
- **Coughing:** Often worse at night or early in the morning.
- **Shortness of Breath:** Difficulty breathing or feeling out of breath.
- **Chest Tightness:** A sensation of pressure or heaviness in the chest.



## Diagnosis

Diagnosing asthma often involves:

- **Medical History and Physical Exam:** Includes symptom patterns, family history, and any known triggers.

- **Pulmonary Function Tests (PFTs):** Common tests include spirometry and peak flow, which measure the amount of air exhaled and the rate of exhalation.
- **Allergy Testing:** Identifies allergens that may trigger asthma.
- **Bronchial Challenge Test:** Involves inhaling a substance like methacholine to see if it causes airway narrowing.

