

# Asthma 101: The Basics

## What is asthma?

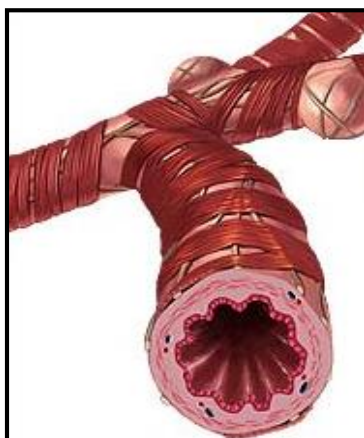
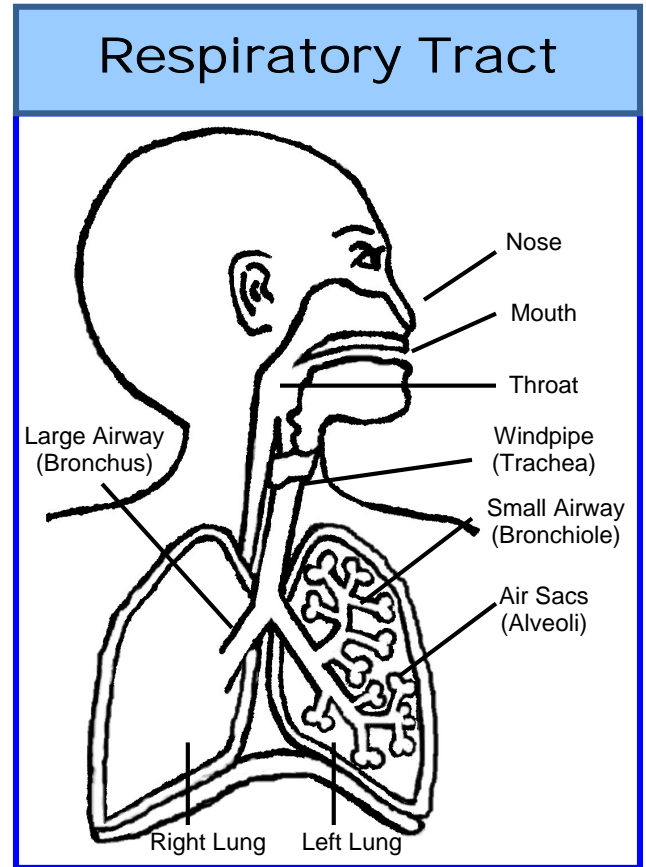
Condition in which sensitive small airway tubes (bronchioles) in the lungs react to triggers

## What causes asthma?

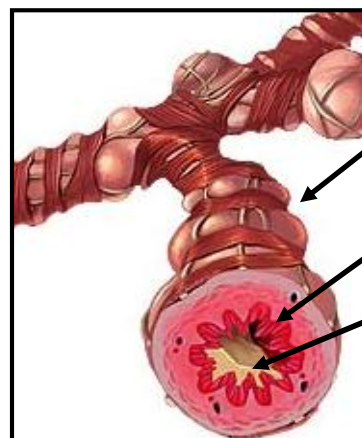
Nobody knows, but it is often partly inherited from parents or other relatives. It is related to allergies and eczema.

## What happens during asthma?

- A. To the bronchial tubes
  - They become swollen (develop inflammation).
  - They make mucus
  - They squeeze (constrict)
- B. To the lungs
  - Air is trapped making it hard to breathe out and get more air in.
- C. To the child
  - Cough (early sign).
  - Wheezing (may not be heard).
  - Fast breathing.
  - Retractions (later sign) – chest or the area between the ribs sinking in, using belly muscles to breathe, nostrils flaring with breathing.



Normal Bronchiole



Bronchiole During Asthma Flare

**Squeezing**  
Albuterol (Proair) helps this

**Inflammation/Swelling & Mucus**  
Prednisone/prednisolone, Pulmicort (budesonide), QVAR, Flovent, Asmanex, Advair, Dulera help this (Advair and Dulera also help the squeezing on a daily basis)

## What are the Common Triggers of Asthma?

- **Infections** – most commonly colds/flu from viruses, but also bacteria sinus infections and/or pneumonia.
- **Allergies** – to dust, pollens (from grass, trees, and weeds), molds, animals, and/or cockroaches for instance. Less commonly, food allergies may trigger asthma.
- **Exercise or active play** (especially sustained running – more than 5 minutes).
- **Night time** – most asthma is worse at 4 a.m. and best at 4 p.m.
- **Smoke** – tobacco smoke (cigarettes, cigars), fireplace, woodburning stove, incense, and/or barbecue.
- **Irritating Fumes or Chemicals** – paints, perfumes, detergents, smog or anything with a strong odor may trigger asthma.
- **Weather** – Cold air and weather changes (changes in temperature and/or humidity).
- **Stress/Emotions** – emotions don't cause asthma, but in susceptible people, they may trigger it.
- **Acid Reflux (Heartburn)** – Acid reflux from the stomach upward into the esophagus may trigger asthma symptoms.