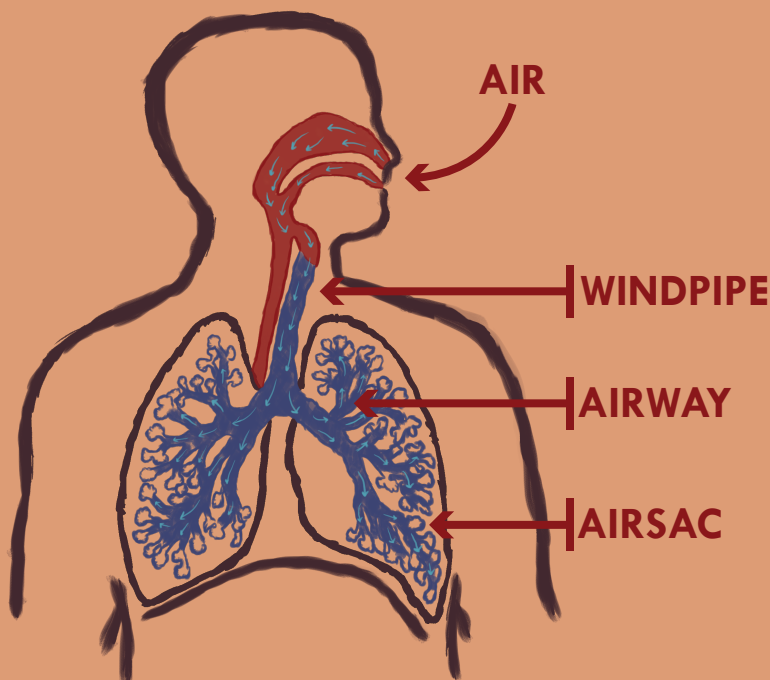


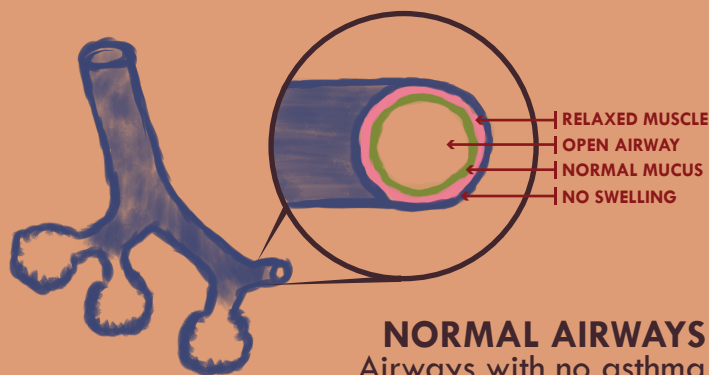
ABOUT ASTHMA

Asthma is a chronic (long-term) lung disease. The airways become swollen when certain substances are inhaled. The airways narrow making it difficult to breathe. This reaction is called a flare-up.



HOW BREATHING WORKS

Air flows into the mouth and nostrils, travels down the throat and into the windpipe. From here, air enters the lungs by traveling through large and then small airways. The air eventually reaches air sacs where oxygen diffuses into the body.



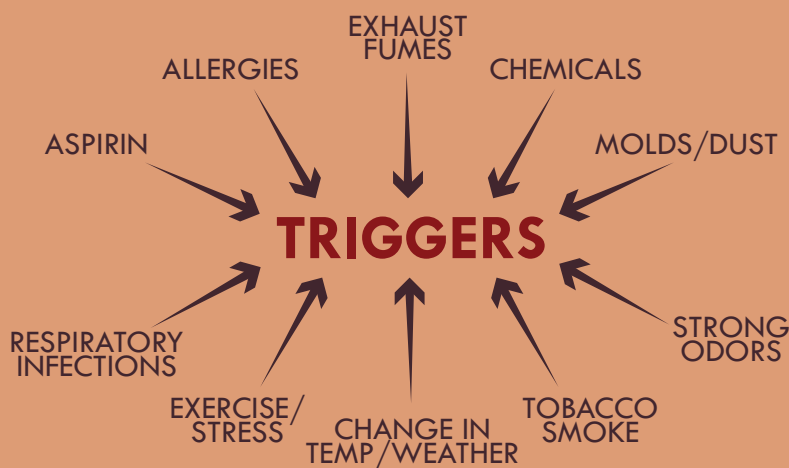
NORMAL AIRWAYS
Airways with no asthma symptoms are open. The muscles are relaxed, mucus production is at normal levels, and there is no swelling.



ASTHMA FLARE-UP
During an asthma flare-up, the airways become swollen and the muscle tightens. The airways also secrete thick amounts of mucus, further closing up the airway.

THE CAUSE OF ASTHMA

The exact cause of asthma is unknown. It may be the cause of genetic or environmental factors or a combination of both. The disease affects over 22 million people in the United States. About one-third of them are children.



ASTHMA FLARE-UP TRIGGERS

If someone has asthma, a flare-up can be triggered when irritants are inhaled. Examples of irritants include exhaust fumes, chemicals, molds, dust, strong odors from paint, perfumes, colognes, and cleaning products, tobacco smoke, temperature or weather changes, stress, exercise, and medications like aspirin. Asthma can also be triggered by having a respiratory infection.

People who have allergies are more likely to have asthma. An allergic reaction is a response to allergens like pollen, roach droppings, dander, and dust mites that lead to sneezing, wheezing, itchy eyes and runny nose. Irritation from allergens and the allergic response can lead to asthma flare-ups.

SEVERITY

	M	T	W	Th	F	Sa	S
Intermittent (<2 /week)			•				
Mild (>2 /week)	•	•			•		•
Moderate (daily)	•	•	•	•	•	•	•
Severe ($>$ daily)	•	•	•	•	•	•	•

The severity of a person's asthma is described by how often the person experiences asthma symptoms. Mild asthma is when a flare-up twice a week or more. Moderate asthma is when there is a daily flare-up. Severe asthma is when there is a flare-up more than once per day.

An "asthma attack" occurs when a flare-up becomes extremely intense. Asthma attacks may lead to hospitalization. The person experiences symptoms like fast breathing, difficulty with speech, coughing, wheezing, and chest tightness. This can lead to anxiety and fear, which may further the symptoms.

TREATMENT

There is no cure for asthma. However, treatments are available that serve to control the disease. Medications come in the form of inhalers, pills and injections. They help keep the airways open and reduce swelling.

QUICK-RELIEF MEDICATIONS

- Beta-2 Inhaler
- Nebulizer
- Steroids
- Oxygen
- IV Fluids
- Magnesium Sulfate
- Epinephrine
- CPAP/BiPAP
- Intubation

Also known as rescue medicines, these immediately relieve asthma symptoms during a flare-up.

LONG-TERM CONTROLLERS

- Corticosteroids
- Lifestyle management
- Avoiding triggers
- Creating action plan
- Monitoring breathing

Medicines can be taken to prevent asthma symptoms. In addition, steps can be taken to avoid triggers through lifestyle changes.