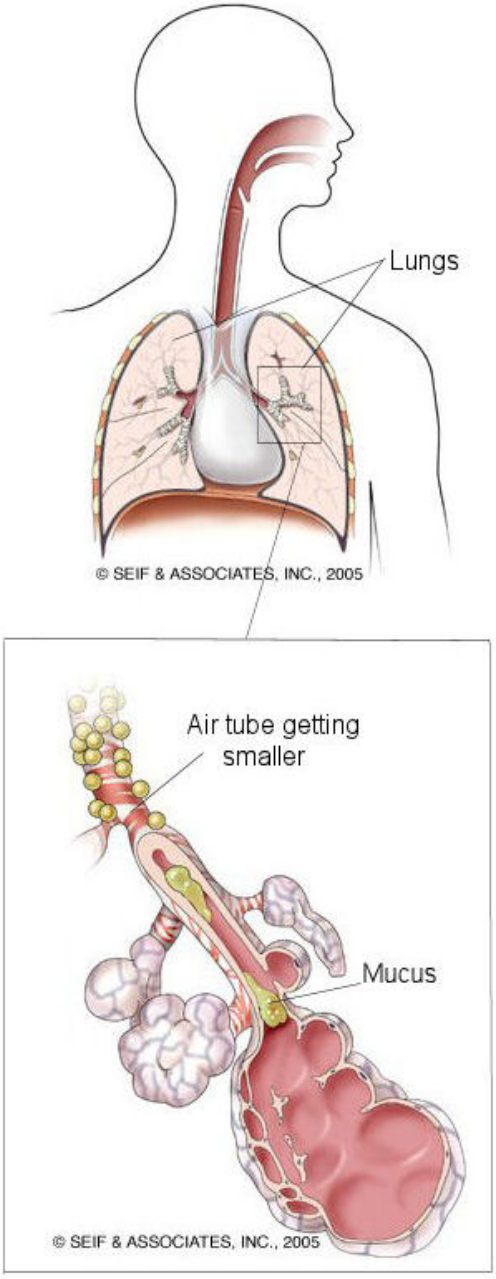
Exercise-Induced Asthma, Pediatric

Asthma is a lung disease that causes difficulty breathing. The difficulty comes from narrowing of small air passages deep in the lungs. This narrowing is caused by inflammation. Inflammation leads to narrowing because of:

- Swelling on the inside of the air passages.
- Squeezing of tiny muscles around the air passages (*bronchospasm*).
- Thick mucus collecting inside the air passages.



The narrowing can be long term (*chronic*) and episodic (comes and goes). Many things can bring on (*trigger*) asthma attacks. Exercise is one of these triggers. Exercise-induced asthma (EIA) refers to a time when trouble breathing comes during or after exercise.

CAUSES

EIA is most often seen in children who have asthma. Asthma may run in families. It may occur in children with allergies or when there are other lung problems. Healthy children with no other problems can have EIA.

EIA may occur more often when 1 or more of the following are present:

- Prolonged or hard exercise.
- Cold air.
- Polluted air (including cigarette smoke).
- Allergy season.
- Upper respiratory infections (common colds, sinus infection, etc.).

SYMPTOMS

The symptoms of EIA include the following during or after exercise:

- Wheezing (whistling sound that is heard while breathing).
- Shortness of breath.
- Chest tightness or pain.
- Dry, hacking cough.

Your child may avoid exercise. Your child may tire faster than other children. Your child may have these symptoms at other times if there is underlying asthma or other lung problems. Symptoms may occur with crying.

DIAGNOSIS

Diagnosis is often made based on the child's symptoms. Tests for how well the lungs work may be done.

TREATMENT

Medicines can be given before exercise to help prevent a flare of asthma symptoms. They may also be given every day. These are called preventative medicines. They can be inhaled or given by mouth.

Medicines can be given if symptoms have already started. These are called rescue medications. They can be inhaled or taken by mouth.

HOME CARE INSTRUCTIONS

The goal of EIA treatment is to let your child play and exercise as much as other children.

- Have your child warm up with mild exercise before hard exercise.
- Avoid lung irritants like cigarette or other smoke. Do not smoke in your home.
- If your child has allergies, your caregiver may have you allergy proof your home.
- Be sure your child's school has your child's medication on hand.
- Discuss your child's EIA with school staff and coaches.
- Watch carefully for EIA when your child is sick or the air is cold or polluted.

SEEK MEDICAL CARE IF:

- Your child avoids exercise despite treatments.
- Your child has asthma symptoms when not exercising.
- Medicines prescribed do not help.

SEEK IMMEDIATE MEDICAL CARE IF:

Your child is short of breath despite asthma medications. Watch for:

- Rapid breathing.
- Skin between the ribs sucks in when breathing in.
- Your child is frightened.
- Your child's face or lips are blue.

MAKE SURE YOU:

- Understand these instructions.
- Will watch your condition.
- Will get help right away if you are not doing well or get worse.

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