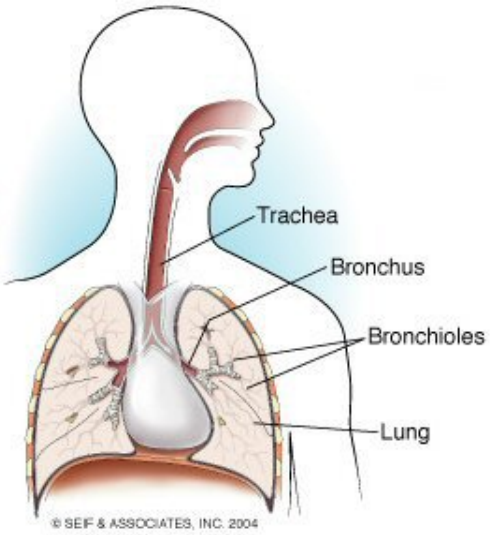
Bronchospasm, Child

Bronchospasm is caused when the muscles in *bronchi* (air tubes in the lungs) contract, causing narrowing of the air tubes inside the lungs. When this happens there can be coughing, wheezing, and difficulty breathing. The narrowing comes from swelling and muscle spasm inside the air tubes. Bronchospasm, reactive airway disease and asthma are all common illnesses of childhood and all involve narrowing of the air tubes. Knowing more about your child's illness can help you handle it better.



CAUSES

Inflammation or irritation of the airways is the cause of bronchospasm. This is triggered by allergies, viral lung infections, or irritants in the air. Viral infections however are believed to be the most common cause for bronchospasm. If allergens are causing bronchospasms, your child can wheeze immediately when exposed to allergens or many hours later.

SYMPTOMS

Wheezing and excessive nighttime coughing are common signs of bronchospasm, reactive airway disease and asthma. Frequent or severe coughing with a simple cold is often a sign that bronchospasms may be asthma. Chest tightness and shortness of breath are other symptoms. These can lead to irritability in a younger child. Early hidden asthma may go unnoticed for long periods of time. This is especially true if your child's caregiver can not detect wheezing with a stethoscope. *Pulmonary* (lung) function studies may help with *diagnosis* (learning the cause) in these cases.

SOME COMMON TRIGGERS FOR AN ATTACK ARE:

- **Allergies** (animals, pollen, food, and molds) can trigger attacks.
- **Infection** (usually viral) commonly triggers attacks. Antibiotics are not helpful for viral infections. They usually do not help with reactive airway disease or asthmatic attacks.
- **Exercise** can trigger an reactive airway disease or asthma attack. Proper pre-exercise medications allow most children to participate in sports.
- **Irritants** (pollution, cigarette smoke, strong odors, aerosol sprays, paint fumes, etc.) all may trigger bronchospasm. **SMOKING CANNOT BE ALLOWED IN HOMES OF CHILDREN WITH BRONCHOSPASM, REACTIVE AIRWAY DISEASE OR ASTHMA. Children can not be around smokers.**
- **Weather changes**. There is not one best climate for children with asthma. Winds increase molds and pollens in the air. Rain refreshes the air by washing irritants out. Cold air may cause inflammation.
- **Stress and emotional upset**. Emotional problems do not cause bronchospasm or asthma but can trigger an attack. Anxiety, frustration, and anger may produce attacks. These emotions may also be produced by attacks.

HOME CARE INSTRUCTIONS

- Control your home environment in the following ways:
  - Change your heating/air conditioning filter at least once a month.
  - Use high quality air filters where you can, such as HEPA filters.
  - Limit your use of fire places and wood stoves.
  - If you must smoke, smoke outside and away from the child. Change your clothes after smoking. Do not smoke in a car with someone with breathing problems.
  - Get rid of pests (roaches) and their droppings.

- If you see mold on a plant, throw it away.
- Clean your floors and dust every week. Use unscented cleaning products. Vacuum when the child is not home. Use a vacuum cleaner with a HEPA filter if possible.
- If you are remodeling, change your floors to wood or vinyl.
- Use allergy-proof pillows, mattress covers, and box spring covers.
- Wash bed sheets and blankets every week in hot water and dry in a dryer.
- Use a blanket that is made of polyester or cotton with a tight nap.
- Limit stuffed animals to one or two and wash them monthly with hot water and dry in a dryer.
- Clean bathrooms and kitchens with bleach and repaint with mold-resistant paint. Keep child with asthma out of the room while cleaning.
- Wash hands frequently.

➢ Always have a plan prepared for seeking medical attention. This should include calling your child's caregiver, access to local emergency care, and calling 911 in case of a severe attack.

SEEK MEDICAL CARE IF:

➢ There is wheezing and shortness of breath even if medications are given to prevent attacks.
➢ An oral temperature above 101° F (38.3° C) develops.
➢ There are muscle aches, chest pain, or thickening of sputum.
➢ The sputum changes from clear or white to yellow, green, gray, or bloody.
➢ There are problems related to the medicine you are giving your child (such as a rash, itching, swelling, or trouble breathing).

SEEK IMMEDIATE MEDICAL CARE IF:

➢ The usual medicines do not stop your child's wheezing or there is increased coughing.
➢ Your child develops severe chest pain.
➢ Your child has a rapid pulse, difficulty breathing, or can not complete a short sentence.
➢ There is a bluish color to the lips or fingernails.
➢ Your child has difficulty eating, drinking, or talking.
➢ Your child acts frightened and you are not able to calm them down.

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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