What is asthma?
Asthma is a chronic disease that causes the airways (bronchioles) of the lungs to swell and narrow. Increased mucus production and inflammation of the lining of the airway reduces the amount of air that can pass by leading to an asthma “attack” or “episode.”

Symptoms and triggers
People with asthma have sensitive airways that react to certain triggers causing wheezing, shortness of breath, chest tightness, and/or coughing. Triggers vary by individual, but typically include one or more of the following:
• exercise (though not a trigger you should completely avoid)
• viral infections (colds, bronchitis, pneumonia)
• pollution (such as smoke, perfume, dust)
• allergens (such as cats, dogs, mites, mold, pollens)
• cold air
• coughing, yelling, laughing
• some medicines and chemicals
• stress
• stomach acid reflux

Can I control my asthma?
Yes; though asthma can’t be cured, symptoms can be controlled. Your health care providers can work with you to develop a treatment plan to help control your symptoms. When your asthma is under control, you can:
• exercise without respiratory discomfort
• sleep through the night without a cough or wheeze
• attend school or work every day
• avoid urgent visits to the doctor
• stay out of the ER

Treatment
Treatment plans are customized to the individual, and typically include one or more medications. The right medications for you depend on a number of things, including your age, symptoms, asthma triggers, and what seems to work best to keep your asthma under control. The major types of asthma treatment, include:
• Quick-relief “rescue” inhalers, such as albuterol (e.g., Ventolin, Proventil) are bronchodilators that act to quickly open swollen airways that are limiting breathing.

Asthma can’t be “cured,” but you can learn to manage symptoms.
They are used as needed for rapid, short-term symptom relief during an asthma episode (or before exercise if recommended by your health care provider).
• Long-term “controller” medications reduce the inflammation in your airways that leads to symptoms. Inhaled corticosteroids (e.g., Flovent, Pulmicort, Q-var) are the primary component of long-term control, either as separate medications or in combination with long-acting bronchodilators. These steroids are generally prescribed for daily use to keep asthma under control on a day-to-day basis and make it less likely an asthma episode will occur.
• Leukotriene Receptor Antagonists (LTRA) (e.g., Singulair) can be prescribed in addition to inhaled corticosteroids to help prevent asthma symptoms by blocking a reaction before it starts. This helps to boost the effect of the inhaled corticosteroids.
• Combination medications contain both an inhaled long-acting bronchodilator (LABA) and corticosteroid (e.g., Symbicort, Advair). This treatment encourages widening of airways while reducing and preventing inflammation at the same time. This combination approach is used when a person’s asthma has not been adequately controlled with inhaled corticosteroids and albuterol.
• Oral corticosteroids (e.g., prednisone, methylprednisolone) reduce the swelling in the airways and may be used during a moderate or severe asthma episode.

Monitor your symptoms
Your asthma may change over time. If you experience symptoms and require quick-relief medicine more than two days each week, or if
your symptoms are interfering with normal daily activity, your asthma is NOT under control. Meet with your health care provider as often as needed to discuss your symptoms and treatment adjustments.

**Emergency signs**

Severe asthma attacks can be life-threatening. Go to a hospital’s emergency department or call 911 immediately if you experience any of the following signs:

- bluish color to the lips, tongue, or tips of fingers
- decreased level of alertness, such as severe drowsiness or confusion, trouble talking
- extreme difficulty breathing
- rapid pulse
- severe anxiety due to shortness of breath

**More information**

- **Mayo Clinic:** [mayoclinic.com](http://mayoclinic.com) [search “asthma”]
- **U.S. Centers for Disease Control and Prevention:** [cdc.gov/asthma](http://cdc.gov/asthma)
- **No Attacks:** [noattacks.org/asthma-resources](http://noattacks.org/asthma-resources)

Have questions about asthma? Contact your primary care provider. Students, you can schedule an appointment at Cornell Health via myCornellHealth or call us during business hours: 607-255-5155.