Asthma is a chronic lung disease with two main components:

- Inflammation—swelling and irritation of the airways.
- Constriction—tightening of the muscles surrounding the airways.

When you’re exposed to a trigger—such as smoke, pets, or pollen—the airways of your lungs become more inflamed and swollen, making it harder to breathe. The inside of your airways also gets smaller, because the muscles around them tighten, causing hard and labored breathing.

Inflammation and constriction together cause narrowing of the airways, which may cause you to wheeze, cough, feel chest tightness or feel short of breath. Effective treatment of asthma must address both inflammation and constriction.

About 15 million people in the United States suffer from asthma. Most are adults, but nearly 5 million of them are children. Asthma is closely related to allergies, so children with a family history of allergy and asthma are more likely to have asthma. Although asthma affects people of all ages, it often starts in childhood.

Talk to your doctor, use this guide, and go to the National Heart, Lung and Blood Institute’s National Asthma Education and Prevention Program at www.nhlbi.nih.gov/about/naepp to learn more about asthma.
Not everyone experiences the same symptoms before or during an asthma attack, but the following are some common ones.

**Warning signs/symptoms:**
- Faster breathing
- Increased coughing
- Difficulty sleeping
- Drop in reading on peak flow meter (a peak flow meter is a hand-held device you blow into that measures how fast air moves out of your lungs. This gives you a peak flow number. Ask your doctor to help you establish your “personal best” reading)

If the episode is just beginning, follow the instructions in your action plan (page 6) and take the reliever medicine your doctor has prescribed to keep the attack from getting worse. Relax your breathing, and cough to loosen mucus in the airways and cough again to bring it up. Spit out the mucus into tissues.

**Danger signs—get help quickly:**
- Hard to talk
- Lips or fingernails turn gray or blue
- Heart rate is very fast
- Quick-relief medicine fails to help
- Peak flow meter reading is in the red zone (indicates that air flow through your lungs is below 50 percent your personal best)

Call your doctor or seek emergency treatment if the attack is getting worse and you have taken the proper reliever medicine and done everything in your action plan. If you have followed these steps and still are having an asthma attack, it’s time to seek medical attention.

Make sure you talk to your doctor about your signs or symptoms.
Is Your Asthma Under Control?

Answer these questions by checking “yes” or “no.” Do this just before each doctor’s visit.

In the past 2 weeks:
1. Have you coughed, wheezed, felt short of breath, or had chest tightness:
   - During the day?  □ yes  □ no
   - At night, causing you to wake up?  □ yes  □ no
   - During or soon after exercise?  □ yes  □ no

2. Have you needed more “quick-relief” medicine than usual?  □ yes  □ no

3. Has your asthma kept you from doing anything you wanted to do?  □ yes  □ no
   If yes, what was it? ________________________

4. Have your asthma medicines caused you any problems, like shakiness, sore throat or upset stomach?  □ yes  □ no

In the past few months:
5. Have you missed school or work because of your asthma?  □ yes  □ no

6. Have you gone to the emergency room or hospital because of your asthma?  □ yes  □ no

What Your Answers Mean
- All “no” answers?—Your asthma is under control.
- One or more “yes” answers?—Something needs to be done.
  Be sure to talk to your doctor about your asthma treatment plan.

Stay away from asthma triggers. They are irritants in the environment that can provoke your asthma symptoms. They differ from person to person, so you should learn what your triggers are and try to eliminate or minimize exposure to them when you can.

Some common triggers are:

**Tobacco smoke**
Tobacco smoke can make symptoms worse for some asthma sufferers. If that is true for you or someone in your household, ask your doctor for ways to help you, or a smoker who lives with you, quit smoking. Do not allow smoking in your home or around you.

**Dust mites**
These microscopic mites live in bedding, stuffed furniture and carpets. People with asthma and rhinitis may be more sensitive to dust mite droppings.

**Pets**
For many people with asthma, flakes of skin (dander) or dried saliva from animals with fur or feathers cause attacks. Always keep pets out of your bedroom. Sometimes it is necessary to keep pets out of the house altogether.

**Cockroaches**
Take steps to keep your home free from cockroaches. Some people with asthma are allergic to the dried droppings and remains of cockroaches.

**Indoor mold**
Some asthma sufferers react to mold, so make sure your house is well-ventilated. Clean mold off surfaces with a bleach cleaner.

**Pollen**
If you are allergic to pollen or outdoor mold, speak to your doctor about appropriate allergy treatments.

**Activity/Exercise**
Always remember to take your prescribed controller medicines if you have exercise-induced asthma. Your doctor may tell you to take an asthma medication before exercising.

**Others**
- Medications such as aspirin and beta-blockers
- Sulfites in food (dried fruit) or beverages (wine)
- Irritants or allergens that you may be exposed to at your workplace such as special chemicals or dusts
- Infections—Being up to date on all recommended vaccinations, including annual influenza immunizations, is important because infections can make your asthma worse. Many of these vaccinations are given to young children, but they are important for people of any age with severe asthma. You are never too old to have these vaccinations.
Take Action

It’s easy to think you’re controlling your asthma when, in fact, it’s controlling you.

Have you learned to put up with frequent symptoms? Are you in the habit of avoiding certain places or activities because of your asthma?

What You Should Expect

When you control asthma, you should:
- Be symptom-free all or most of the time
- Enjoy being physically active without having asthma symptoms
- Not miss school or work because of symptoms
- Sleep through the night without symptoms

If you need to use a rescue or quick-relief inhaler more than twice a week to treat asthma symptoms (except during and after exercise), it may mean that your asthma is poorly controlled.

Why It Matters

- Asthma can be unpredictable. Your asthma symptoms, if not well controlled, can suddenly flare up, depending on the severity of your asthma.

Get an Asthma Action Plan

1. Develop a treatment plan. You and your doctor should create a written plan to help you manage your asthma.
2. Avoid your asthma triggers. Talk with your doctor about things that make your asthma worse and try to stay away from them.
3. Keep track of your asthma. A daily symptom and medication journal can help you and your doctor see how your treatment plan is working.
4. See your doctor regularly. At least once every six months, see your doctor and review your treatment plan.

- What you can’t feel can hurt you. You can’t feel it, but airway inflammation (swelling and irritation) is always there. If left untreated, inflammation may cause lung damage and a decline in lung function.
- Asthma in pregnancy. Uncontrolled asthma can lower the level of oxygen in your blood, so your baby gets less oxygen, too. Most asthma medications are safe to take during pregnancy. If you are pregnant or are thinking about becoming pregnant, talk to your doctor about your asthma.
- Allergic rhinitis (inflammation of nasal membranes) and sinusitis (infected or inflamed sinuses), or having close relatives with these conditions, increase the probability of asthmatic reactions.
According to the National Institutes of Health (NIH), inhaled corticosteroids are the most preferred and effective medication for long-term control for people needing rescue inhalers more than twice a week.

There is also growing evidence that corticosteroids may help prevent lung damage that may occur when asthma is left untreated.

Oral steroids may be used if inhaled steroids and other medications are ineffective.

Other Controller Medicines

Long-acting beta₂-agonists—also called bronchodilators—help keep your airways open by relaxing the smooth muscles surrounding them. NIH guidelines for moderate or severe persistent asthma rate these medications second to inhaled corticosteroids. When used regularly, the bronchodilators help reduce airway constriction, improve lung function and reduce the need for a rescue inhaler.

Leukotriene modifiers, taken as a tablet instead of being inhaled, may be good for patients who find it difficult to use inhalers correctly or don’t respond well to other anti-inflammatory drugs.

Quick-Relief (Rescue) Medicines

Short-acting beta₂-agonists, such as albuterol, also help relax the muscles surrounding your airways, acting within minutes to relieve the sudden symptoms caused by asthma triggers. If they do not relieve your symptoms quickly, speak with your doctor as soon as possible.

If you are using rescue medicine more than twice a week, it could be a sign that your asthma may not be properly managed. Only controller medicines can actually control your asthma.
What is the American College of Physicians?

The American College of Physicians (ACP) is the largest medical specialty society and second-largest physician group in the United States. Its membership includes more than 115,000 internal medicine physicians, related subspecialists, and medical students. Internists treat the majority of adults in the United States. ACP’s mission is to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine.

What is a doctor of internal medicine?

Doctors of internal medicine, often called “internists,” focus on adult medicine. They care for their patients for life—from the teen years through old age. Internists have had special training that focuses on the prevention and treatment of adult diseases. At least three of their seven or more years of training are dedicated to learning how to prevent, diagnose, and treat diseases that affect adults. Some internists take additional training to “subspecialize” in one of 13 areas of internal medicine, such as cardiology or geriatrics. Internists are often called upon to act as consultants to other physicians to help solve puzzling diagnostic problems.

What’s an “FACP”?

The letters “FACP” after a physician’s name means he or she is a Fellow of the American College of Physicians, a mark of distinction for an internist. ACP Fellowship is an honorary designation that recognizes service and contributions to the practice of medicine—it says that the doctor is committed to providing the best health care possible.

Why choose an internist for your health care?

An internist, just like a family practice or general practice doctor, can serve as your primary care doctor. But internists are unique because they focus on adult medicine. Internists don’t deliver babies, they don’t treat children, and they don’t do surgery. They do, however, have wide-ranging knowledge of complex diseases that affect adults. With in-depth training in adult medicine, an internist is your best choice to help you navigate the increasingly complex world of medical care.

An internist can treat you for something as routine as the flu, or provide in-depth care for diseases such as diabetes, cancer, or heart disease. Internists often coordinate the many subspecialists a patient might see in the process of treating an illness. Internists’ patients like knowing that they have a relationship with a physician who is equipped to deal with whatever problem the patient brings—no matter how common or rare, or how simple or complex.

For more information about internists and internal medicine, visit www.doctorsforadults.com.