

## **Asthma**

Asthma is a chronic lung problem that affects 20.3 million Americans. The cause of asthma is not known, but some people are more at risk than others. Risk factors for asthma include:

- Genetics – asthma runs in families
- Allergies – people with allergies have sensitive air tubes
- Gender – women have asthma more often than men.
- Obesity – the relationship of asthma and being overweight is not known
- Environment – exposure to fumes, pollution, infections, or tobacco smoke
- Race – Blacks have asthma more often than Hispanics or Caucasians

### **How Do the Lungs Work?**

The lungs are made up of hollow air tubes that act as “highways” for air going into and out of the lungs. The largest air tube is called the trachea and is located in the upper middle chest. The trachea branches off into 2 main “highways” called the right and left



bronchus. The air tubes continue to branch into smaller and smaller “highways”. At the end of each “highway” is a cluster of air sacks (alveoli). The air sacks allow oxygen breathed into the lungs to go into the blood stream and carbon dioxide to come out of the blood to be breathed out of the body. The lung has millions of air sacks.

### **How do the Lungs Change with Asthma?**

Asthma causes the walls of the larger air tubes to swell (inflammation). Swelling in the walls of the air tubes cause the inside opening to be smaller. The small air tubes make breathing harder. Mucous build-up inside the air tubes slow air flow even more. If asthma is left untreated over time, the inflammation can cause permanent lung damage. Asthma can suddenly get worse. Exposure to “triggers” cause more swelling and can close the air tubes – this is called an asthma attack. Death can occur during an asthma attack if not treated quickly.

### **What are Symptoms of Asthma?**

You may have all or just a few symptoms. Symptoms can be mild or severe and include:



- Coughing
- Wheezing – a whistling noise when you breathe
- Chest tightness – squeezing or pressure over your chest
- Shortness of breath

### **How is Asthma Diagnosed?**

A health care provider will ask questions about your breathing and perform a physical exam. A chest x-ray and breathing tests may be ordered to help make the diagnosis of asthma. If sinus problems, allergies or acid reflux are aggravating your breathing, other tests and treatments will be needed. The test results and how often you are having breathing symptoms determine the severity of your asthma.

### How is Asthma Treated?

There are 2 main types of asthma medicine. “**Rescue or Quick Relief**” medicine opens the air tubes fast. Rescue medicine is only used during breathing symptoms or to prevent breathing symptoms when exercising. All people with asthma should have a rescue medicine to use when they need it. Rescue medicine does not treat inflammation in the air tubes, it only gives temporary help. If your asthma bothers you more than twice a week during the day or more than twice a month at night, you may need a “**Controller**” medicine. Controller medicine treats the inflammation in the air tubes. It must be taken



every day to keep asthma controlled and help prevent asthma attacks. You should never stop your controller medicine without talking to your provider. **Medicine is only part of the treatment for asthma.** Talk to your provider and see below for other ways to control asthma.

### What “Triggers” an Asthma Attack?

Swelling and tightness of the air tubes can be caused by the following:

- Viral infections like a cold
- Sudden changes in weather or air temperature
- Exercise especially if the air is cool and dry
- Medications like aspirin, NSAID (Motrin, Advil, etc), or beta blockers
- Intense emotions like laughing or crying
- Hormone changes
- Irritants like cigarette smoke, pollution, or fumes
- Allergens like pollen, mold, foods, drinks, or animal dander

### What Can I Do To Keep Asthma Controlled?

1. **Educate** yourself about asthma.
2. Take your **medicine** as directed and follow your “**Action Plan**”.
3. **Avoid** things (triggers) you are allergic to.
4. Follow a healthy lifestyle – **exercise; eat right; lose weight** if you are overweight; and **stop smoking** if you smoke.
5. **Prevent infection** – avoid people who are sick; wash your hands regularly; and take vaccines for flu (every year) and pneumonia (every 5 years).
6. **Call your provider** if your asthma is getting worse or if your medicines are not working as well.
7. See your provider **regularly** and make a **follow-up** appointment within 1 week of going to the emergency room or hospital for your breathing



## **Emergency**

### Call 911 or Go To the Emergency Room if:

- You feel like you can’t breathe at all.
- You can’t say 4-5 words because you are so short of breath.
- You cough so much you cannot take a breath.
- Your lips or fingernails are bluish in color and you are short of breath.

