What is asthma?

Your lungs

When you breathe, air goes in your nose and mouth, down the windpipe (trachea), into the breathing tubes (bronchi), and down to tiny air sacs, (alveoli).

Picture your lungs as an upside-down tree. Your airways are the “hollow tree branches” and the air sacs are the gas-exchanging “leaves” of your lung tree. Your airways are surrounded by muscle, like bark covering a tree trunk and its branches.

People with asthma have very “twitchy” airways that tend to become irritated (inflamed) easily. These airways tend to overreact when they come in contact with a trigger.

1. What triggers an asthma attack?

Common triggers include:

- Weather changes or cold air
- Colds, upper respiratory infections, ear or sinus infections
- Exercise
- Allergens such as pet dander, dust mite, mold, pollen and cockroaches
- Irritants such as perfumes, cigarette smoke and strong odors

2. What happens to your lungs during an asthma attack?

1. The muscles surrounding the airways tighten. This is called “broncho-spasm.”
2. Excessive amounts of mucus are secreted into the airway. This thick sticky mucus can plug up the airway.
3. The airway becomes inflamed and swollen.

These 3 reactions cause your airways to become very narrow. It may become difficult for you to breathe when you try to push air through the very narrow airways.

3. Symptoms of an asthma attack

- Frequent cough worse at night and with exercise
- High-pitched sound (wheezing) made by the lungs while breathing out
- Chest tightness
- Sucking in of the skin between the ribs (retractions)
- Fast breathing at rest and shortness of breath
- Difficulty with speaking or eating because of fast breathing

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