

MassMedLink to Health

Information on Asthma

Asthma is a chronic lung disease that affects an estimated 17 million people in the United States alone. It is more common with adult women than adult men, more common among male children than female, and children suffer with the disease more than adults. When you have asthma, your airways are narrow due to inflammation and swelling. With asthma your lung function can change from normal lung function when asthma is under control to abnormal function when asthma is out of control. If you have a family history of asthma, you have an increased risk of developing asthma.

Those with asthma, have sensitive airways that may react to different things in the environment called “triggers.” These triggers can cause asthma symptoms to start or worsen. Some triggers include:

- **Certain foods or medicines**
- **Exercise or exertion**
- **Weather**
- **Viral infections (cold or flu)**
- **Tobacco smoke, dust, pollens, animal hair or dander**
- **Car exhaust, air pollution, chemical fumes, or strong smells**

Identifying the environmental triggers and taking measures to minimize those triggers may help to control your asthma.

Common symptoms of asthma include coughing, especially at night, wheezing, shortness of breath, chest tightness or pain. Sleep disturbance may be another symptom of this condition. Not everyone with asthma has the same symptoms in the same way.

There are 2 types of medications your doctor may prescribe for you to treat your asthma. These include quick relief or rescue medication and long-acting medication to control your asthma.

Quick-relief, or rescue, medications should be used if you are experiencing an asthma attack such as shortness of breath, or difficulty breathing. They are also used before stressful exercise or activity. These short-acting medications relax and open up your airway making it easier to breathe.

The most common inhaled rescue medication is albuterol. It is the best to use in treating asthma attacks. Its side effects may include rapid heart beat, headache, and trembling.

Ipratropium generic for Atrovent, an anticholinergic, is another quick-relief medication that may be used in conjunction with albuterol to help improve a severe

asthma exacerbation. Ipratropium can also be used separately for those who do not tolerate albuterol. The main side effects of this medication include drying of the mouth, increased wheezing, and blurred vision.

Long-acting or control medications are designed to suppress swelling and inflammation in your airways and reduce mucus. It is important that you take your long acting medications daily at the same time to prevent asthma attacks, even if you are not experiencing any immediate problems. Long acting medications should not be used as a rescue medication during an asthma attack.

Most of the long acting medications are corticosteroids, also known as steroids. The commonly used inhaled steroids include: fluticasone generic name for Flovent, flunisolide generic name for Aerobid, beclomethasone generic name for QVAR, budesonide generic name for Pulmicort, and mometasone generic name for Asmanex Twisthaler.

The main side effects of the steroid medications include cough, hoarseness and increased risk of mouth infection or thrush. Thrush is a mouth and throat infection that can be avoided by rinsing your mouth and spitting after using steroid inhalers.

Another long acting medication is salmeterol generic name for Serevent Diskus. Salmeterol works similarly to albuterol however, it takes longer to begin working and its effects last longer. Common side effects include rapid heart beat, muscle tremor, and low potassium.

Some asthma medications include two medications. Combivent and DuoNeb, are combinations of albuterol and ipratropium. These medications provide quick relief during an asthma attack. Advair is a combination of salmeterol and fluticasone, this product is used for maintenance and is not to be used for quick relief.

Leukotriene modifiers, a third class of long-term control medications, include medications such as zafirlukast generic name for Accolate or montelukast generic name for Singulair. These medications work by decreasing the inflammation and constriction in your airways as well as by reducing the accumulation of fluid in the lungs. Common side effects include headache, nausea, stomach pain, and stomach upset.

Theophylline, the last of the long acting medications to review, is also used to control asthma symptoms. Theophylline directly relaxes the smooth muscle of the bronchi. Theophylline levels in the blood should be checked periodically through a blood test. Side effects include rapid heart beat, nausea, vomiting, headache, seizures, loss of appetite, insomnia, and upset stomach.

When asthma symptoms are severe oral corticosteroids such as prednisone tablets, may be needed to control the symptoms. This medication is often given in a taper dose where a large dose is started and over a period of time the dose is decreased

until it is not needed any longer. This medication should be taken with food and can cause mood changes.

Taking your medications correctly is an important part of preventing asthma complications. When treating asthma it is important to know which medications prescribed are long acting and used consistently over a period of time, for example inhaled corticosteroids, and those medications used for rescue or short acting medications, such as albuterol.

Rescue medication such as albuterol is the most effective medication for you to use during an acute asthma attack. When 2 puffs are necessary, take the first puff then wait 2 minutes before taking the second puff. This allows the first puff to start working so the second puff can penetrate a little deeper allowing for a better therapeutic result. Long acting medications should be used daily as directed in order to keep asthma in control with the hope of using your rescue inhaler less. If you find that you need to use your rescue inhaler more often call your physician, you may need a change in medication therapy.

Also, correct inhaler technique is important in making your medication most effective. Consult with your pharmacist, physician, nurse, or respiratory therapist for correct inhaler technique. Also review the instructions that are provided with your inhaler. Some find that using a spacer allows for better inhalation technique.

See your doctor if your asthma symptoms are not fully controlled. Your physician will check your lung function through spirometry which is a measurement of the volume of air your lungs are capable of moving over 1 to 6 seconds. Also an easy, 5 question, Asthma Control Test (ACT) can be reviewed to help assess asthma control over the past 4 weeks.

See your doctor immediately or go to the emergency room if you develop severe symptoms. Due to lack of oxygen and difficulty of breathing, often your perception of the severity is unclear. Be certain that those around you are aware of signs and symptoms of a severe asthma attack.

Those with asthma are more susceptible to uncontrolled asthma during flu season. It is recommended that those with asthma have an annual flu vaccination to prevent complications.

Treating asthma and keeping asthma under control is possible. See what triggers your asthma and try best to avoid these triggers. Use the ACT or Asthma Control Test to help assess your asthma control and review the results with your physician. Lastly, use your medications properly and understand the purpose of your medications.

We encourage you to speak with one of our MassMedLine pharmacists to review questions you may have about the information provided, or questions regarding

your specific medications. Also if you have difficulty affording your medications, MassMedLine case managers are available to assist you.

References available upon request

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