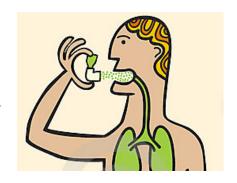
## ASTHMA

For those with asthma, lungs simply react too strongly to molds, smoke, cat dander, dust, pollen and sometimes even vigorous exercise. A sensation of gasping for breath or wheezing occurs. This can reverse with time. We don't have a good explanation why some people react more than others. But we do know that everyone is on a continuum...treatable lung reactivity was once even found in 10% of Olympic athletes who thought they had no lung problems!



With modern medicines there is no reason to suffer with asthma. Everyone should breathe nearly perfectly every day. Medicines to keep asthma quietly in the background are now available. There is no fear of becoming 'resistant' to medicines by using them every day, as long as they are used properly. Asthma is becoming more of a problem worldwide, perhaps because of more air pollution (or food additives or chemicals in our environment)?

Do you actually have asthma? The symptoms are varied, although most asthmatics do wheeze. But some with just an excess of mucus clear their throat a lot, hear crackling in their lungs, feel tightness in their chest or simply feel uneasy. Children may just get quiet. We can test your lungs by blowing a measured amount of dust at you until you can't breathe too well, but we at Caring Family don't like that test. Besides being dangerous, you are perfectly capable of gathering information that will diagnose asthma (or prove it isn't).

A peak flow meter can help you determine if your breathing difficulty is truly asthma. It measures how quickly the air can leave your lungs. We should do that in the office at least once! With asthma, the air can get out of your lungs normally most of the time. But during an attack, the air is abnormally slow to leave. You can make a chart of how well you are breathing every day by keeping track of your peak flows several times each day. Please ask for a prescription for a peak flow meter if you would like one. When you are more aware of your asthma symptoms you will probably not use it much anymore.

Sometimes your breathing improves when you have a weekend away from your usual environment. That tells us that something in your home or work or school is making your asthma worse. Things that may be causing a problem include: pets, things that collect dust, carpets, thick drapes, old mattresses, outdoor pollens or grasses, mold in house plants, metabisulfites in beer or wine, mildew, certain perfumes or air fresheners, cleaning products, feather pillows, solvents, tobacco smoke, aspirin or spicy foods. Avoiding allergens is a very effective way of treating asthma. An allergist might be needed to test you through a blood test or scratch tests on your skin. Treatment however, is usually not any more complicated than allergen avoidance and medications; sometimes shots encourage tolerance to your specific sensitivities (for a lot of time and effort!) An old-fashioned way of helping your body handle outdoor allergens is to eat a little local honey daily.

Allergens are additive! You may be fine with your dogs <u>and</u> your hamster until fall's burning leaves irritate you beyond your wheezing threshold. If you can't feel when your asthma is worsening, use a peak flow meter to measure your lung status. When you are properly treating your asthma, exposure to one allergen for a limited time should not send you to the emergency room. Many people have only rare asthma attacks. Treating an attack away from home can be difficult if your medication is not with you.

Exercise can worsen asthma symptoms. Usually this means you are already not breathing your best even before you start your exercise. Our goal for you is to develop a treatment plan that lets you exercise to your heart's (lung's) content! There are people who never exercised or participated in sports simply because they never knew how to control their asthma (or even didn't know they had it).

Many people only have asthma when they get sick. Since mucus can get stuck in an asthmatic's lungs more easily, bacteria can more easily find a safe place to multiply and cause pneumonia in such individuals. Having medication that treats the asthma will not only help you feel better, but help prevent lung infections. EVERY asthmatic is HIGHLY ENCOURAGED to get a flu shot every year.

Treating asthma is easier now than in the past. Several excellent medications have been genetically engineered to act strictly on the lung. There is no reason to be crippled by your asthma. If you are not getting adequate control despite several visits with your Caring Family physician, we will be happy to refer you to either an allergist or a pulmonary specialist.

Rescue inhalers offer quick relief. If you only use them twice a week you will not need any other medication. However, most asthmatics will at least from time to time need to use a longer-acting controller medication. These are steroids and longer-acting drugs that slowly move the lung to a healthier state

Rescue inhalers give you quick relief from your asthma. These include: albuterol [Albuterol,



ProAir, Proventil] and Levalbuterol (Xopenex). These are beta-adrenergic drugs that make the body send a local emergency signal to the lung to relax the airway. They can make the heart go fast, but that is usually something that wears off after your body gets used to it. The medical staff of Caring Family can demonstrate the proper use of these inhalers. You can practice the proper technique in front of a mirror. By holding the mouthpiece an inch away from your mouth, breathing out, then activating the nebulizer and taking a good strong breath inward, then hold your breath 10 seconds, you will get the maximum benefit from your medication. Some children can use a spacer device or breath into a paper bag into which the medication has just been sprayed. For even younger children a nebulizer machine (compressor) can be used to make the medication into a mist that can be directed at their face; or if they'll wear it, given through a facemask.

Longer acting beta-adrenergics take longer to kick in but last between 8-12 hours. They are preventative [controller] medications typically combined with an inhaled steroid in drugs like Advair (fluticasone and salmeterol), Symbicort (budesonide and formoterol), Dulera(mometasone and formoterol), and others. If you need to get up in the middle of the night regularly for a puff on your nebulizer, consider Advair (or alternative) each night at bedtime BEFORE you have a problem. Remember that it doesn't kick in as fast as a rescue inhaler so use a rescue inhaler first when you are in need of immediate relief. There are now several even longer acting  $\beta$ 2-agonists ("ultra-LABAs"), including indacaterol, carmoterol, vilanterol, and olodaterol, which have a duration of action > 24 hours and are suitable for once-daily dosing, sometimes we have samples of these to try.

Inhaled steroids alone as Flovent(fluticasone), Aerobid(flunisolide), Asmanex(mometasone), Azmacort(triamcinolone), Pulmicort(budesonide), Qvar(beclomethasone) have long been touted as the first controller drug to use after rescue inhalers. I just prefer the combinations like Advair. There is very little absorption into your body of these steroids, so we don't worry too much about side effects of steroids like thin bones or cataracts. This is especially helpful if used prior to visiting a house with allergens (like a relative with a cat). For those using them longer-term, the effect of these steroids builds up over a week or two.

Singulair (montelukast) was designed just for the lung so that the inflammatory cascade could be interrupted without the risks that we have with steroids. It is amazingly effective. This is a pill (chewable for kids) taken once a day. Its effect is appreciated only after a week or two of reliable use (don't skip a day!) Doses may be increased or decreased depending on the season. Generic now available for under \$20 a month (use Good Rx if your insurance charges you more).

Finally there is omalizumab (Xolair) that is an IgE blocker, sucking up the bad boys that irritate the lung... it is a designer drug which must be taken by injection and the injections are very expensive. It works on some of those with a blood test showing high IgE levels. A pulmonologist referral is needed for that.

Remember that your understanding of asthma will change with time. Your asthma may change with time as well. Use Caring Family's doctors on a regular basis to discuss and improve the control of your asthma. You may also learn from other resources. Some health plans will pay for asthma education (contact them). Check out the resources below:

http://www.allergyasthmanetwork.org/patients/--awesome networking for asthmatics
http://www.lung.org/search-results.html?q=asthma--American Lung Association
http://www.aafa.org/page/asthma.aspx--Asthma & Allergy Foundation of America
http://www.asthmasa.org/--National Asthma Education Program
http://www.aaaai.org/conditions-and-treatments/asthma--American Academy of Allergy, Asthma and Immunology
www.mayoclinic.com great site for any disease

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