

Asthma

CARING FOR YOUR CHILD WITH ASTHMA

Asthma is caused by swelling and smooth muscle spasm which narrows the air passages in the smaller bronchial tubes in the lungs. This causes wheezing, which is a noise occurring when the child breathes out. Narrowing of the air passages may also interfere with the airflow in and out of the lungs so that the child must breathe faster and may have to work harder to breathe. Infections like bronchiolitis can cause wheezing, but in older children who have had repeated attacks, the wheezing is commonly due to allergy, usually to something like pollen, mold, or dust. Children who have had repeated attacks of wheezing are unusually susceptible and often have others in their families who have had asthma. Any child who has had repeated attacks of wheezing is said to have reactive airways disease. This is what we call asthma.

Asthma is a serious disease which can cause a great deal of illness and possible chronic health problems, but asthma can be controlled and usually cured. Good asthma control means:

- 1) Full activity, including running and climbing stairs, and no missed school.
- 2) No emergency visits to the doctor or the emergency room, and no hospital admissions.
- 3) No waking up at night due to asthma, and normal airflow when tested at rest.
- 4) Use of a beta-adrenergic inhaler (albuterol) no more than twice a day.
- 5) A medication routine which produces hardly any or no side effects.

With your help, following the recommendations below, your child's asthma can be controlled:

Do not allow any smoking in the house or car - ever. Exposure to tobacco smoke greatly increases the risk that a wheezing child will develop asthma, that a child with asthma will get pneumonia, that an attack of asthma will be severe and prolonged and may require hospitalization, that asthma attacks will become more frequent and serious, and that complications of asthma will later develop. Regular exposure to tobacco smoke is the most common reason why children with asthma are not able to normally participate in school and other activities. Asking people to smoke in another room, by the exhaust fan, or only when the asthmatic child is out of the house is no good because smoke moves from room to room, lingers in the air, and remains almost forever in the furniture and carpets and on the walls. Asthmatic children may have adverse effects from entering a room where someone was smoking weeks previously. Ask your child's doctor for the information sheet "Passive Smoking." Check with your child's doctor if a member of your family needs help to stop smoking. Wood smoke can also be troublesome, and we urge that any home heating with wood be done only with a properly functioning air-tight stove or fireplace

insert. Follow this link to the [American Academy policy statement](#) on the hazards of environmental tobacco smoke.

Other contaminants in the air should also be controlled. Children who have had repeated attacks of wheezing and children with asthma need to be protected from exposure to mold spores, dust, animal dander, feathers and other air contaminants. Ask your child's doctor to give you the information sheet "Home Environmental Control for Asthma Patients." If your child has asthma and you are selecting a new home or apartment, you will want to be sure it is built in such a way as to minimize risk to your child. Keep cats and birds out of the house!

Avoid extreme changes in air temperature or humidity. Room air should be a comfortable temperature. Moving from a hot room to a cold one, or going outdoors in the cold wind, are not good for the child who is wheezing. Room air should be neither too dry or too moist. Your child's doctor may suggest a humidifier for a child with bronchiolitis or other infections, but too much moisture (relative humidity over 40%) may make asthma worse. Dry air is also an irritant. If the air in your home is too dry (humidity below 15%), you may wish to run the humidifier for an hour two or three times a day.

Your child will be given medicine to take for the acute attack of wheezing. Albuterol or a similar medicine may be prescribed to relieve airway spasm. Prednisone or another steroid may be needed to reduce swelling in the air passages. Antibiotics may be needed if your doctor finds signs of infection. Be sure these medicines are given exactly according to your doctor's directions and only when prescribed by your doctor.

Inhalation treatments are frequently important for children with wheezing and asthma. The use of an electrically-powered nebulizer permits asthma treatments in the home which previously were available only in the physician's office or the hospital. The nebulizer allows your child to breathe medicines which reduce both the airway spasm and the swelling. Follow your doctor's directions carefully regarding the dose of medicines used in the nebulizer and the frequency of treatments. See the information booklet provided with the nebulizer

After the acute attack of asthma, medicines and breathing treatments may need to be continued to help prevent a recurrence. Since it is impossible to remove all pollens and other sensitizing substances from the air we breathe, children with asthma may need to continue to use medicine to reduce airway spasm and swelling for several months or years. Cromolyn and Pulmocort are commonly used for this purpose and may be given in the nebulizer or with a metered-dose inhaler. Follow your doctor's instructions carefully.

Exercise and cold air often aggravate asthma, making sports participation difficult. Children with asthma may experience chest pain, get short of breath, or find that they run out of energy during strenuous exercise, particularly in cold air. This is called exercise-induced bronchospasm. In order to prevent it, your doctor may prescribe an inhaler for your child to use before participation in physical education

and sports. Your doctor will explain to your child how it is to be used and give you a written authorization for allowing it to be used at school.

Children needing under treatment for asthma need a way to be sure the treatment is giving the best possible effect. When we see your child with asthma, if over 5 or 6 years of age, we measure peak flow. We ask your child to blow into a meter which shows how fast air can flow out of the lungs with maximal breathing effort. Measuring peak flow is the best single method to determine the effectiveness of your child's asthma treatment. If your doctor prescribes a peak flow meter for your child to use at home, you will be instructed in the use of the meter. Test peak flow twice daily, both before and after inhaled medicine, and record it on the "Asthma Action Plan" sheet. Be sure to note whether the result is in your child's Green Zone, within 80% of best peak flow; Yellow Zone, between 50% and 80% of best peak flow; or Red Zone, less than 50% of best peak flow. Carefully follow medication and treatment instructions on the "Asthma Action Plan" sheet. If peak flow is in the Red Zone, always call your child's doctor.

Children with asthma related to pollens, dusts, and other air-borne allergens may need skin testing. Skin tests are the most accurate way to determine what substances cause your child's allergies and precipitate the asthma. Your doctor may wish to get a blood test first to determine how much allergic reaction your child shows. After skin tests have been carried out, your child's doctor will discuss the results and make recommendations regarding things you can do to reduce your child's exposure to the things to which he appears to be allergic. If pollens and other substances which can't be avoided appear important to your child's asthma, allergy desensitizing shots may be recommended to help decrease the frequency, severity, and duration of asthma attacks. Please see our web page on [Asthma-Housing Recommendations](#) elsewhere on this web site.

Children with asthma should avoid getting respiratory infections as much as they can. Teach everyone in your house to cover their coughs, to use tissue properly and dispose of it immediately after use, and to wash their hands after they blow their noses or cover their coughs. When children have colds, try to separate them from those who are well. Be sure your children dress properly for the weather and get a properly balanced diet and the right hours of sleep. We recommend that all children with asthma have influenza vaccine (flu shots) each year. Giving flu shots to other members of the family may also help protect the child who has asthma.

Careful follow-up is always important for the child who has asthma. Be sure medicines are given as directed. Be certain to keep follow-up appointments. These are the times when your doctor will determine whether an asthma attack is truly over and advise you how to help to keep it from recurring. Be sure your child with asthma has all the recommended preventive health examinations. At these examinations we will check to be sure that asthma is not resulting in any complications or interfering with your child's normal growth or ability to participate.

You will have a number of questions about your child's asthma and how you can best help it to improve. Write your questions down and bring them with you for your

child's next appointment. If you need help before that appointment, please feel free to call during office hours for more routine questions, or at any time if you believe you have an emergency.