

## Asthma and the Environment

Children with asthma have extra sensitive airways. Asthma symptoms can be started by many things in the environment and these triggers are unique to each child. Some common triggers of asthma symptoms are cigarette smoke, perfume, strong odors and cold air. Other environmental factors that can affect children with asthma include viral illness, weather and climate changes, pollens, house dust, molds and animals. Try to limit your child's contact with these triggers, especially where the child spends the greatest amount of time, such as at home and at school.

### **SMOKING:**

Pipe, cigarette and cigar smoke are harmful to children and adults in general, but smoke poses a special problem for children with asthma. Even the smell of smoke on clothes can trigger asthma symptoms in a child with sensitive airways. Smoking in the home of a child with asthma or smoking in the car can do serious harm to a child with asthma.

### **POLLENS:**

Lightweight airborne pollens from grasses, weeds and some trees can be carried for miles. These pollens strike the eyes, nose and airways triggering the symptoms of asthma. Although it is difficult to totally avoid pollens, some suggestions are:

- Keep the child's bedroom windows shut and use central air conditioning if available during the allergy season. Bedroom windows should be kept closed during the early morning hours when weed pollen counts are highest. If a room air conditioner is used, recirculate the air rather than pull outside air indoors. Wash or change air filters every two weeks.
- Mow the lawn frequently to limit the amount of pollen released.
- After working or playing outside during high-pollen seasons, your child should shower and change clothes immediately. Dirty clothes should be kept outside the sleeping area.

### **MOLDS:**

Molds are found year round throughout the house, outdoors and in certain foods but especially in areas of high moisture. Molds produce lightweight spores that can travel for relatively long distances on air currents in the house. Bathrooms and damp basements are two obvious areas for mold growth. Swamp coolers, humidifiers, refrigerator drip pans and crispers also promote growth of molds.

Here are suggestions to decrease mold growth:

- Light and ventilation decrease mold growth. Thoroughly clean tile, floors, shower curtain, tub surroundings and under plumbing fixtures on a routine basis. Use a fungicide such as diluted household bleach if necessary (1 part bleach to 10 parts water).
- Dehumidifiers decrease mold growth in damp areas such as basements. Areas that become damp with rain are ideal for mold growth and should be fixed.

- Evaporative coolers, vaporizers and humidifiers with a reservoir are ideal places for mold and bacterial growth. When these appliances are operating, molds and bacteria can be sprayed throughout the house. In general, these appliances are not recommended. If you do use one, empty the reservoir daily, clean it with soap and water, and dry thoroughly. The reservoir should be refilled just before use. Evaporative coolers should be scrubbed regularly with soap and water.
- Green houses, compost piles and homes with many plants also are frequent sources for molds. Cover the potting soil of houseplants with foil to decrease the spread of mold spores.
- Foam pillows and mattresses as well as waterbeds can be sites for mold growth. Replace foam pillows with washable polyester ones. Cover foam mattresses with a plastic cover.

### **HOUSE DUST:**

House dust is made of dirt, insect debris, dust mites, animal proteins, human skin fragments, food crumbs, bacteria, fungi and other materials. House dust collects on every item in the house, including mattresses, upholstered furniture, clothes, rugs, drapes and toys. Here are ways to decrease your child's contact with house dust:

- Avoid clutter and dust catchers, particularly in your child's bedroom. These include wall decorations (pictures, pennants, and fabric wall coverings), drapes and venetian or mini-blinds.
- Give your child washable, "non-allergenic" stuffed toys when possible. Store ordinary toys, dolls and play equipment outside the bedroom or in closed containers.
- Keep the bedroom closet door closed. Vacuum the closet floor often. Store only in-season clothes in the closet.
- Bare floors are ideal. Carpeting should be vacuumed frequently and thoroughly. It is best to vacuum and dust early in the day to let dust particles settle before nap or bedtime. Be sure to clean under furniture and in the closet. Dust with a damp cloth when possible.
- In damp climates, mattresses and box springs should have allergen proof coverings. Zippers or openings should be taped. Use only polyester pillows and wash them several times a year. Bed linens and covers should be washable cotton or synthetic fibers. Do not use feathers, wool or foam products.
- Forced-air furnaces should have a dust-filtering system. Filters can also be cut to cover each room vent. All filters should be changed every 2 weeks during the heating season. Cold and warm air ducts can be professionally cleaned every 4-5 years or more often in dusty environments.
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### **ANIMALS:**

A substance in animal saliva, dandruff and urine causes allergic reactions in many people. Children may be more sensitive to one type of animal (such as cats) than another. All furred and feathered animals have the potential to cause allergic reactions.

Removing a family pet is very difficult, but if your child has significant sensitivity it may be necessary. Once the pet is removed from the house, animal residue may remain in the house for months. Thorough cleaning is essential, especially stuffed furniture, rugs, drapes and the heating /cooling system.

If a child with limited animal sensitivities has a pet, the pet should live outside and **NEVER** be in the child's bedroom.