



SCHOOL ENVIRONMENTAL HEALTH AND ASTHMA COLLABORATIVE

HOW TO REDUCE OR ELIMINATE ASTHMA TRIGGERS AT HOME

If your child has asthma, keeping your home clean and protected will help reduce exposure to substances and activities—known as asthma triggers that can cause asthma attacks. Asthma triggers vary from person to person. By working with your child’s doctor, you can identify which triggers make your child’s asthma worse. Then, you can develop a plan to reduce or eliminate those triggers in your home.

Your child’s doctor also might prescribe medication that reduces your child’s sensitivity to asthma triggers (controller medication) and/or provides relief after an asthma attack begins (quick relief or rescue medication). By reducing asthma triggers at home and ensuring that your child takes his or her medication, you can effectively manage your child’s asthma.

Listed below are common home asthma triggers and some actions you can take to reduce or eliminate them. For those triggers that affect your child, follow as many of the recommendations as you can, as often as you can. The more you can do, the better it will be for your child, and anything you can do to reduce asthma triggers at home will help to create a healthier home environment.

Dust Mites

Dust mites are tiny bugs that are too small to be seen and are found in every home. Dust mites live in mattresses, bedcovers, pillows, carpeting and rugs, fabric-covered furniture, clothes, stuffed toys, and household dust. If dust mites trigger your child’s asthma, take these actions to reduce them in your home.

- Vacuum carpeting, rugs, and fabric-covered furniture weekly with a HEPA (High Efficiency Particulate Air) filter vacuum. HEPA filters can significantly reduce indoor particle pollution by 60%. Make sure that children with asthma are not home while you vacuum.
- Keep surfaces free of clutter, and dust regularly with a damp cloth or a microfiber cloth, which is more effective.
- Wash bedding (sheets, blankets and coverings) in hot water (130°) each week. Dry them completely.
- Choose washable stuffed toys and wash them in hot water (130°) each week. Dry them completely. Keep stuffed toys off of your child’s bed.



- Use zippered dust mite-proof covers on pillows, mattresses and box springs.
- Avoid having upholstered furniture, especially in your child's bedroom.
- Wash curtains regularly.
- Store out-of-season clothes in plastic bins or garment bags.
- Remove carpeting, and lightly dampen the carpet before removing it. If it is not possible to remove carpeting from your entire home, remove it from your child's bedroom. Area rugs that can be washed are preferable to wall-to-wall carpeting.
- Replace heating system filters each month (or at least every three months) during winter, and every three months during other seasons.
- Maintain low indoor humidity, ideally between 30-60% relative humidity. Humidity levels can be measured by hygrometers, which are available at local hardware stores.

Molds

Molds grow on damp materials such as shower curtains, bath towels, tubs, sinks, tile, carpeting and ceiling panels. To control mold, you must reduce moisture on surfaces and in the air. If molds are a problem in your home, remove the mold and get rid of excess water and moisture in the air. (Lowering moisture also helps reduce other triggers, such as dust mites and cockroaches.) When items become damp or wet, dry them within 1-2 days to avoid mold growth. If molds trigger your child's asthma, take these actions to reduce or eliminate mold and dampness in your home.



- Remove small amounts of mold from hard surfaces by wiping or scrubbing it away with a mixture of water and unscented household detergent. Remove the mold gently to keep its spores from circulating through the air. Let the area dry completely. If materials that absorb water—like carpeting and ceiling panels—become moldy, they might need to be thrown out.
- Prevent or reduce dampness by using an exhaust fan or opening a window for at least 20 minutes to get rid of moisture on surfaces and in the air during and after showering, cooking, washing dishes or using the dishwasher. Clean the fan filters frequently.
- Place lids on pots during cooking to reduce moisture in the air.
- Fix roof, window or plumbing leaks immediately.
- Prevent rain water from entering the home due to poor drainage.
- Fix roof, window or plumbing leaks immediately.
- Vent the clothes dryer to the outside.
- Limit the number of plants in your home. Molds can grow in the soil.
- Keep drip pans in your air conditioner, refrigerator and dehumidifier clean and dry.
- Maintain low indoor humidity between 30-60% relative humidity. Humidity levels can be measured by hygrometers, which are available at local hardware stores.
- If necessary, purchase and use a dehumidifier.

Odors

Some ingredients in home products produce odors that can trigger an asthma attack. For a person with asthma who is very sensitive to odors, almost any odor can trigger an attack, even when the product smells good and the scent seems light. Some examples include cleaning and laundry products like bleach, detergents, spray starch and spray cleaners; personal care products like cosmetics, hairsprays, deodorants, talcum powder, cologne, perfume, scented shampoos and lotions; air fresheners like sprays, plug-ins, incense and scented candles; home improvement products like paints, adhesives and pesticides. If odors trigger your child's asthma, take these actions to reduce or eliminate them in your home.



- Open windows or doors, or use an exhaust fan, to air out your home.
- Instead of air freshening sprays, consider placing orange or lemon slices in rooms to provide a fresh scent, and throw them away in about four days before they become moldy.
- Use home-made asthma-safer cleaning products that include items such as baking soda and hydrogen peroxide (3% solution). These products are effective and inexpensive. (Homemade asthma-safer products include ingredients such as water, baking soda, castile soap, drops of dish soap, hydrogen peroxide, and lemon.) Clearly label each product.
- If you don't use home-made asthma-safer cleaning products, find other products from the store that don't negatively affect your child. If there are no other product options, use the products less often and in smaller amounts, avoid using them when you child is at home, and air out the room before your child returns home.
- Always follow the instructions on product labels. Avoid using more than the recommended amount of the product as that will reduce odors and fumes.
- Do not use your stove or oven heat your home. The odors from food spills can circulate in your home.
- If you use a spray product, always circulate fresh air into the room where the spray is used and keep children with asthma out of that room for several hours after spraying. Do not use barbecues or generators inside your home or garage, or outside near open windows.

Pests

Rats, mice, and cockroaches can trigger an asthma attack. Cockroaches shed skin scales and leave behind waste (poop), and when they die their bodies turn into a dust. All of these can trigger an asthma attack. Pesticide sprays and foggers used to control cockroaches also can cause an asthma attack. And rats and mice shed dead skin cells, called dander, and leave behind waste, all of which can trigger an asthma attack if they are touched or breathed in. You can control pests by removing their indoor access to food, water, and shelter. Pay special attention to areas like your kitchen and bathroom, and areas where you store paper bags, cardboard boxes, or newspapers, such as your basement. If pests trigger your child's asthma, take these actions to reduce or eliminate them in your home.



- Keep counters, sinks, tables, cabinets and floors clean.
- Do not leave human or pet food out. Instead, store food in sealed containers.
- Cover trash cans and take out the trash every day.
- Clean up standing water in dish racks, sinks, showers, plant saucers, and from drip pans in your air conditioner, refrigerator and dehumidifier.
- Promptly clean up dishes, food crumbs, liquid spills, and any messes.
- Fix leaky plumbing, ceiling and roof leaks, cracks around baseboards and cabinets, and other sources of moisture or water.
- Vacuum up cockroach bodies and dust with a HEPA (High Efficiency Particulate Air) filter vacuum.
- Seal cracks and openings where bugs can get into your home (outside faucets, holes, openings around or inside cabinets, areas around windows).
- If you find evidence of pests, vacuum up their droppings and use sticky-traps or tamper and child-resistant poison bait stations before using pesticide sprays or foggers. Place baits away from children, such as behind the refrigerator. If you must use sprays, limit the spray to the infested area, carefully follow instructions on the label, and keep your child out of the room. Make sure there is plenty of fresh air when you spray. Be aware that using chemical pesticides is generally only a temporary solution to a home pest problem. (Note: Boric acid is a strong toxin to cockroaches and generally non-toxic to humans. However, about 2 tablespoons of boric acid can be toxic to children if it is swallowed.)

Pets

Asthma attacks can be triggered by contact with animal skin flakes (dander), saliva, urine (pee), and feathers, not from the hair. Very small particles from each of these can be carried through the air and breathed in. They can also come into contact with the nose or mouth when your child touches his or her face. If your child is sensitive to these things, take these actions to reduce or eliminate them in your home.

- Choose a pet that does not have fur or feathers.
- Consider keeping the pet outdoors or even finding the pet a new home.
- Keep the pet out of your child's bedroom and other sleeping areas at all times, and keep the doors closed.
- Keep the pet away from fabric-covered furniture, carpeting, and stuffed toys.
- Vacuum carpeting and furniture often with a HEPA (High Efficiency Particulate Air) filter vacuum.



Smoke

Asthma can be triggered by smoke from the burning end of a cigarette, pipe, or cigar. It can also be triggered by the smoke breathed out by a smoker (second hand smoke). Also, smoke from wood-burning stoves and fireplaces contain a mixture of harmful gases and small particles that can trigger an asthma attack and other respiratory illness. If your child is sensitive to smoke, take these actions to keep smoke away from your child.



Tobacco smoke

- Don't smoke in your home or car.
- If you smoke, smoke outside and change clothes before coming inside.
- Ask smokers not to smoke near your child.
- Avoid riding in the cars of people who smoke.

Smoke from stoves and fireplaces

- Limit the use of wood burning fireplaces.
- Avoid indoor burning.
- If you do burn indoors, reduce the amount of smoke by burning dry wood that has been split, stacked, covered and stored for at least 6 months. Never burn garbage, plastics or pressure-treated wood. They contain harmful chemicals.
- If possible, replace your old wood stove with a new, cleaner heating appliance.
- Consider using an air purifier with a HEPA (High Efficiency Particulate Air) filter in rooms with a stove or fireplace.
- Have some airflow around the fireplace or a vented appliance.

Other Triggers to Consider

Respiratory Infections

Respiratory infections, such as colds or the flu, can trigger an asthma attack. If your child's asthma is triggered by colds, flu and other respiratory infections, take these actions to prevent illness.

- Have your child wash his or her hands frequently.
- When your child is old enough to understand, encourage your child to avoid touching his or her face. Touching the nose or mouth is a common way for germs to be spread.
- Call your doctor if your child has a respiratory infection that affects his or her breathing.



Strong Emotions

Strong emotions and actions, such as laughing or crying very hard, stress, anger, fear and yelling can make your child breathe fast, and trigger an asthma attack. If strong emotions trigger your child's asthma, take these actions to reduce their effects.

- Identify the settings, circumstances and the kinds of feelings associated with situations that seem to precede asthma attacks. Simply knowing what those situations are can help your child gain a sense of control over the situations.
- Help your child learn to recognize the early warning signs of an asthma attack triggered by emotions. This can help to reduce the extent to which their bodies respond.
- Try to find ways to remove your child from stressful situations.
- Help your child find positive ways to reduce his or her anger, anxiety or fear.

