

CONTROLLING ASTHMA TRIGGERS IN THE HOME

Tenants for Healthy Housing – Environmental Health Watch & Cleveland Tenants Organization

ASTHMA TRIGGERS ARE THINGS THAT MAKE BREATHING PROBLEMS WORSE FOR PEOPLE WITH ASTHMA.

There are many kinds of asthma triggers. These include air pollution, pollen, cold weather, colds and stress. Some of the strongest triggers are found in the home. These include dust mites, cockroaches, mold and tobacco smoke.

Triggers can be allergens or irritants. Allergens are things people are allergic to. Irritants are things that irritate the lungs. Your doctor can help you figure out what asthma triggers may affect your family.

You can do a lot to reduce exposure to asthma triggers in the home:

- Remove the source of the trigger.
- Reduce moisture in the house.
- Keep dust levels down.
- Make the bedroom a trigger-free space.

The house may need to be repaired, and some habits changed, but your home will be a healthier and more comfortable place for everyone. Does asthma run in your family? If so, reducing a baby's exposure to triggers may mean less chance your child will develop asthma when older.

WHAT ARE HOUSEHOLD TRIGGERS?

DUST MITES

Our bodies shed thousands of dead skin cells every day. The dead skin cells collect on bedding and stuffed furniture. Dust mites are insects that eat the dead skin. They are so tiny you cannot see them. Dust mites are a normal part of life. Every house has them. The problem is that many people are allergic to dust mite droppings. Dust mite droppings are an asthma trigger for them.

Dust mites and their droppings build up on sheets, blankets, mattresses and pillows. Mites and droppings are on stuffed toys, furniture and rugs. They are also part of the house dust.

Allergen-proof covers for pillows, mattresses and box springs keep dust mites from building up. Wash bedding often in hot water. See the section *Create a Trigger-Free Bedroom* for more information.

Dust mites cannot hide on smooth surfaces. Replace stuffed furniture with smooth-surfaced furniture, like vinyl, if you can. Get rid of carpets and large rugs, too. Hard surface floors reduce the buildup of dust mites and are easier to clean.

Dust mites grow best in moist conditions. See the section *Reduce Excess Moisture* for more information.

COCKROACHES

Many homes have problems with cockroaches. Many people with asthma are allergic to cockroach dust. It is a very strong asthma trigger.

There is now a new method and new products for getting rid of cockroaches. The new products are much safer than the roach sprays that were used in the past. The new roach control method is called integrated pest management (IPM). IPM can be used by pest control companies, landlords, homeowners and tenants. See the section *Getting Rid of Roaches* for more information.

Roach dust is still around and is an allergen even after the roaches are gone. Use a household cleaner and clean rinse water to clean up the roach dust. See the section *Cleaning Asthma Triggers* for more information.



MOLD

Molds are tiny plants that can grow on moist surfaces in houses. They look like dark or stained fuzzy areas. They may have a musty odor. Many people are allergic to molds. Molds are common asthma triggers.

A certain kind of black mold may cause a serious lung disease in babies. This mold can grow on wood, paper, wallboard or similar products that have been soaked by leaks or flooding. Call your local health department for help if there is a baby living in your house and you think this mold is present.

Throw out boxes, wallboard, newspapers, clothing and anything that is wet or has mold growing on it. Use a household cleaner to cleanup mold. Paint over the area with a paint like Permawhite™ that stops mold from coming back. See the section *Cleaning Asthma Triggers* for more information.

The key to reducing mold is getting rid of excess moisture in the house. See the section *Reducing Excess Moisture* for more information.

ANIMAL DANDER

Dander is dead skin cells from animals. Some people with asthma are allergic to the dander from pets in the house. Cats are usually the problem. Fewer people are allergic to dogs.

- Get rid of the pet if you can.
- Keep the pet outdoors.
- Do **NOT** allow pets in the bedroom.
- The dander sticks to clothes and hands. It may help to wash hands and change clothes after handling a pet or being in a house with a pet.
- Bathe the pet often. (Check with your vet.)
- Vacuum and clean pet sleeping and play areas often. See the section *Cleaning Asthma Triggers* for safe ways to vacuum.

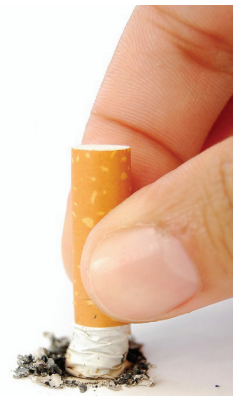


TOBACCO SMOKE

Tobacco smoke is a serious breathing irritant and a strong asthma trigger. There are other serious health problems caused by breathing tobacco smoke.

It is best for the health of everyone in the house for the smoker to quit smoking. That can be very hard to do. There are programs that can help. Call the American Lung Association (1-216-781-5656), the American Cancer Society (1-800-227-2345), or your doctor.

- Do **NOT** allow smoking in the house. Have people smoke outside.
- Do **NOT** allow smoking in the car.



FUEL BURNING APPLIANCES

Fuel burning appliances include stoves, furnaces, water heaters, space heaters and fireplaces. The fuel they burn can be natural gas, kerosene or wood. Fuels produce gases, smoke and particles (soot) when they burn. These can be triggers for asthma. Fuel burning appliances that do not work properly can produce carbon monoxide (CO). This is a deadly gas. If these appliances are not vented properly, they can put a lot of moisture into the house.

- Get a carbon monoxide detector. It can save lives.
- Have the heating system checked once a year.
- Check the chimney clean out opening. Keep it clear.
- Use an exhaust fan in the kitchen.
- Put a timed exhaust fan in your attached garage.
- Do **NOT** use non-electric space heaters unless they are vented to the outside.
- Do **NOT** use stoves for heating.
- Do **NOT** use wood burning fireplaces.
- Do **NOT** leave a car running in the garage

CLEANING ASTHMA TRIGGERS

House cleaning is needed after asthma triggers are under control. Allergens build up in dust and stick to floors and other surfaces. Some of these allergens can stay strong for years. They need to be removed.

Cleaning can stir up dust and trigger an asthma attack. A person with asthma should leave the room being cleaned.

RUGS AND CARPETS

Remove old carpets that are heavily soiled, if you can. They are probably loaded with allergens. It is best to use area rugs that can be washed often.

Carpet removal can release a lot of dust that can go all over the house. Removal needs to be done very carefully. A person with asthma should leave the room when a carpet is removed.

- Seal off the room with plastic sheeting.
- Mist the carpet with water mixed with a little dishwasher soap.
- Cut the carpet into small sections and roll them up.
- Wrap the sections in plastic sheeting and seal with tape.
- Mop the floor as each section is rolled up. Mop the whole floor again after all the sections have been removed.

In the basement, bathroom and kitchen use carpets and rugs that you can wash often. Rugs can get wet in these rooms and mold can grow on them.

It is very important to vacuum any carpets safely and often. Do **NOT** vacuum when a person who has asthma is in the room. It is best to use special

“HEPA,” “allergen” or “low emission” vacuums and bags. These reduce the amount of allergen dust that gets into the air during vacuuming. You may be able to get allergen filter bags and special exhaust filters to upgrade your regular vacuum.

There are things you can do to help keep the dust down if you do not have a special vacuum or bags.

Use a bag that is already half full. New bags let out too much dust. When you put in a new bag, add flour or cornstarch to partially fill it. Pour 1 to 2 cups of flour or cornstarch on the floor and vacuum it up.



Try to vacuum every week. Vacuum very slowly. Spend three times longer than usual. This will help pick up all the allergen dust. A vacuum with a beater

bar works best. A “dirt finder” light will help you find all the dust.

SURFACES THAT YOU CAN WET-CLEAN

Clean counters, cabinets, vinyl floors, and woodwork very well with a household cleaner. Use a paper towel or rag dipped in the cleaning water to clean small areas. Throw the towel or rag away after an area is cleaned. Do **NOT** dip anything back into the cleaning water. You want to pick up all the allergens. You do not want to spread them around.

Use a cleaning bucket and a rinse bucket for large floor areas. Rinse the mop each time before dipping back into the cleaning water. Change the rinse water often.

Cleaning with bleach can destroy allergens so that they no longer trigger an allergic reaction. Use about 3/4 cup of household bleach in a gallon of water. Leave the bleach on the surface for a few minutes so it has time to work. Then rinse the bleach off.

REDUCE EXCESS MOISTURE

Too much moisture in a house can increase dust mites, mold and roaches.

These triggers need moisture to live. Moisture can come from a variety of sources:

- roof and plumbing leaks
- poor air circulation
- flooding
- sewer backups

MOISTURE CONTROL STRATEGIES

- **Air Circulation** - Do not keep the house closed up too tight. Be sure the air can circulate in all the areas in the house. Make sure to let fresh air in and stale air out.
- **Exhaust fans** - Use exhaust fans in the kitchen and bathroom to get rid of moisture. Keep the door open after showering if there is no bathroom exhaust fan.
- **Drying clothes** - Hang clothes outdoors to dry or use a clothes dryer properly vented to the outside. Do not vent the dryer into the basement or crawl space. Do not hang clothes to dry in a basement or attic. That can create a too moist environment.
- **Fix leaks** - Fix roof or plumbing leaks. Stains or mold on plaster, wallboard or wood are signs of leaks and water damage.
- **Clean up standing water** - Clean up flooded basements or other wet areas right away. Throw out everything that is water soaked.
- **Humidifiers** - Avoid humidifiers. They will only add to your moisture problem. They are also a perfect place for mold to grow.
- **Dehumidifiers** - Dehumidifiers are sometimes needed to dry out basements. They must be emptied and cleaned regularly. If not, they will be a place for molds to grow. Use a hose to connect

Never mix bleach with any other cleaning products. Dangerous vapors can be produced. Open a window and use a fan to keep the air moving when you clean with bleach. Some people are sensitive to bleach vapors. These people should stay away from the area being cleaned with bleach.

the dehumidifier to a drain. That way you will not have to empty it.

- **Air Conditioners** - An air conditioner can help to control moisture in the air in the summer time.
- **Basement** - Moisture problems in basements are often related to drains. Drains need to be kept free of clogs.
- **External Water Drainage** - Your basement will get wet if outside water does not drain away from the house. Slope soil down from around the house so that water drains away from the foundation.
- **Storm Drain** - The storm drain underground may leak. Disconnect the downspout and run the downspout water at least 5 feet away from the house. Do not let water affect your neighbor's house.
- **Gutters** - Keep gutters clean and sloped toward downspouts. This will help rainwater run to the downspouts.
- **Crawl Space** - A crawl space can be a big source of moisture. Clean everything out of the crawl space. Make sure the surface is even. Then lay 6 Mil plastic sheeting over all the soil. Lap the edges over each other by at least 1 foot. Secure the plastic up on the outside walls by 1 foot. This is not costly and it works great in reducing household moisture.



GET RID OF ROACHES



IPM*

IPM is a new, safe and effective way to get rid of cockroaches. IPM does not use roach bug sprays, foggers or bombs. Those methods create too much exposure to poisonous chemicals and may be asthma irritants.

IPM uses baits and changes in the home to get rid of roaches. The baits are roach poison mixed with roach food. Using this form of roach poison cuts down on human exposure. The poison kills the roach after it gets back to its nest. Other roaches eat the dead roach and they are poisoned, too. This way, many roaches die for each one that eats the bait. Soon all the roaches are gone. You can get Combat™ and other brands of roach bait from hardware, grocery and drugstores. Pest control companies have them, too.

CREATE A TRIGGER-FREE BEDROOM

A good place to start your asthma trigger control is the bedroom of the person with asthma. Even if you cannot reduce all the asthma triggers in the house, it will help to make this person's bedroom mostly trigger free.

The bed can hold a lot of asthma triggers. Dust mites



THE IPM METHOD IS SIMPLE AND EFFECTIVE

- Use roach poison in bait form to safely attract and kill roaches.
- Deny the roaches entry, food, water and shelter.
- Do **NOT** use roach bug sprays, foggers or bombs.

HOW IPM WORKS:

- Place bait stations near food and water sources and places where roaches hide.
- Use a syringe to put small dabs of gel bait behind the stove, refrigerator and other areas that the roaches go to.
- Remove food sources. Roaches like the bait, but they like cookie crumbs and potato chips better. Clean up food crumbs from floors, tables, counters, couches and chairs every day. Wash dirty dishes, or put them in soapy water in the sink. Cover all food containers. Keep trash in a sealed container. Do **NOT** leave pet food out.
- Remove sources of water. Fix leaks. Wipe up spills. Do **NOT** leave pet water out.
- Cockroaches like to live and hide in clutter. Get rid of all the boxes, bags, clothes and paper that make up clutter in your home.
- Seal up roach living areas and entry points in walls and cabinets. Use caulk, steel wool, screens and foam to fill cracks and holes.

See Environmental Health Watch's *Cockroach Control Guide* for more detailed information.

build up in pillows mattress, pillow, sheets, blankets and the mattress. Roach dust, animal dander and molds can also get onto the bed. These allergens get on the bed from clothes and hands. Allergens may also be in dust that is stirred up as people move around the room. We spend about eight hours a day in bed. A person with asthma may be in close contact with high levels of several allergens for about 8 hours every day.

*IPM - Integrated Pest Management



There are things that you can do to reduce this exposure.

- Use special allergen-proof covers for the pillow, mattress and box spring. The covers keep the dust mites and other allergens from building up.
- Wash sheets and pillow cases at least every 2 weeks in hot water. It is best to use water at 130 degrees. Be careful! Water this hot can burn skin! Raise it to 130 degrees only when doing laundry. **Keep water below 120 degrees all other times.** Dry your bedding in a very hot dryer. Washing bedding at a lower temperature may be effective if it is done every week.
- Use blankets you can wash. Wash them every month in hot water if you can. Wash more often if you use cold water. Wash the allergen-proof pillow and mattress covers every couple of months.
- Leave your floors bare. It will be easier to keep them dust free. See the section before on floor cleaning.
- Area rugs should be washed every month in hot water.

- Remove stuffed furniture, drapes and curtains. They collect dust.
- Remove as many other things that collect dust as you can. Put books, toys and clothes in drawers or covered boxes.
- Allergens collect on stuffed animals. Washable stuffed animals are best. Put non-washable ones in the freezer for 24 hours once a week. This kills dust mites. Vacuum toys thoroughly after you take them out of the freezer.
- Do not use humidifiers or vaporizers.
- Keep the bedroom door closed.
- Use a window air conditioner.
- Remove shoes at the door.
- Use an air cleaner with a special filter called a HEPA filter.
- No smoking, no pets, no plants in this room.

See the section *Cleaning Asthma Triggers* above.

ASTHMA: INDOOR AND OUTDOOR POLLUTION HAZARDS

- Those opposed to strict air pollution regulations try to downplay the harmful health effects of bad outdoor air.
- They point to the role of bad indoor air in illnesses like asthma.
- The fact that there are indoor hazards does not get outdoor pollution off the hook.
- Both indoor and outdoor pollution increase breathing problems for people with asthma.
- We need to control both indoor and outdoor air pollution.