

# Asthma Environmental Triggers

Because you have asthma, your airways are very twitchy or sensitive. They may react to things that can trigger (that is, make) asthma symptoms start. These things are aptly called, “triggers.” When you are near an asthma trigger your airways may become swollen, tighten up, and produce too much mucus. You may start to wheeze, cough, have congestion, itchy eyes, or a runny nose. It’s important to find out what your asthma triggers are and figure out ways to control them.

Each person has different triggers. To help you find out what your asthma triggers are, you may need to keep a written record of your activities. For example, write down what you were doing, and where, whenever you have symptoms. This will help you find out if being near certain things causes your symptoms. For example, if your symptoms are worse when you make your bed or vacuum, dust mites may be a trigger. Controlling your triggers will help you have fewer asthma symptoms and make your asthma treatment work better.

Here are some common triggers and the actions you can take to control them.

## Tobacco Smoke

Tobacco smoke irritates the airways, and over time, can cause permanent damage to the lungs. The nose and the lining of the lungs filter the air that is inhaled. When smoke (either from smoking tobacco or breathing it in second-hand) is inhaled, it can destroy this lining. When this happens, it may cause asthma attacks and respiratory infections to happen more often. It is best not to smoke or be near smoke. Ask your doctor for ways to help you or members of your family to quit.

### How to stay away from or control this trigger:

- Do not smoke.
- Do not smoke around children or allow smoking around children.
- Do not allow smoking in your home, and avoid rooms where people are smoking.
- Encourage household members to quit smoking, or to smoke outside.
- The odor will remain on their clothes, however, and close contact can trigger an asthma response, too. It may be wise to wear a “smoking jacket” when going outside to smoke, which is then removed so the odor is not brought back into the house. (wash face and hands before contact with person with asthma)
- Do not allow any smoking in your car.
- Do not allow any smoking in your bedroom.

Cigarette smoke can also harm your infant and young children. Studies show that children who breathe second hand smoke have more lung diseases, such as asthma. Children with asthma who are around smoke have reduced lung function. They need more asthma medications and emergency room visits than children who are not around smoke.

## Foods

Some people have known food allergies that trigger asthma attacks. Other people are triggered by the preservatives found in some foods.

### How to stay away from or control this trigger:

- Wear a medic-alert bracelet that identifies your food allergies. (you may need a blood test or skin test to identify which foods you are allergic to)

- Carry injectable epinephrine to provide first aid during an emergency allergic reaction, see your doctor for more information about this.
- Read food labels closely to avoid eating hidden triggers.

## Weather and Outdoor Air Quality

Changes in the seasons, pollen or outdoor (smog and soot) air pollution can also be asthma triggers. Pollen are tiny particles produced by trees, grasses, weeds, and flowers that can be carried on the wind or by insects. Extreme weather, such as very cold air or high humidity, and changes in the seasons, can also trigger asthma symptoms.

### How to stay away from or control these triggers:

- Keep windows closed and use air conditioning, if possible, during times when pollen or pollution is highest.
- Consider staying indoors during the middle of the day and afternoon when the pollen count is highest, or during changes in weather.
- If you are outside when the pollen count is high, it might help if you wash your hair before you go to bed.
- Check the air indexes (<http://www.michigan.gov/deq> —click on AIR), and avoid going outdoors when the pollution or pollen counts are high.
- Wear a scarf, mask or pull a turtleneck over your mouth and nose in cold weather.
- Dress warmly in the winter or on windy days.
- Keep track of the daily local weather forecast.
- Maintain a relatively constant temperature and humidity in the house.
- Consider keeping an asthma & weather diary, tracking symptoms and weather changes.

## House Dust Mites

Many people with asthma are allergic to dust mites. House dust mites are microscopic creatures that live on skin flakes shed by humans and pets. They thrive in warm, humid environments like mattresses, upholstery, pillows and carpets. They are found everywhere humans and warm-blooded animals live. It is especially important to keep your bedroom or sleeping area as “asthma-safe” as possible as you spend so much time there.

### These are some actions you can take to gain control of dust mites:

- Dust weekly.
- Put your mattress and box spring in allergy-proof air tight, or plastic, covers.
- Damp wipe mattress cover weekly.
- Reduce clutter, toys and collections in bedroom.
- Wash or place stuffed toys in freezer overnight every week.
- Put your pillow in an airtight allergy-proof cover or wash it every week in hot water (130° F).
- Avoid sleeping or lying on upholstered furniture.
- Remove carpets that are laid on concrete.
- Wash your bed covers and clothes every week in hot water (130° F).
- Consider using a HEPA air cleaner in the bedroom or sleeping area.



continued next page

# Asthma Environmental Triggers

## House Dust Mites *continued*

### Some additional actions include:

- Reduce indoor humidity to less than 50 percent. Use a dehumidifier if needed.
- Remove carpets and drapes from your bedroom. Use a washable window shade instead.
- Clean or replace heat/air conditioner filter as per manufacturer's instructions, and if possible, use a high efficiency pleated filter like 3M Filtrete.
- Avoid using a vacuum or being in a room while it is being vacuumed.
- If you must vacuum, one or more of the following things can be done to reduce the amount of dust you breathe in:
  - Wear a dust mask that covers the mouth and nose.
  - Make sure all fittings and connections are tight.
  - Use bags that are "dust proof"—at least double thick-ness or non-woven synthetic.
  - Use a central vacuum cleaner with the collecting bag outside the home (if possible).
  - Use a vacuum cleaner with a HEPA filter.
  - Use a vacuum cleaner that has powerful suction.

## Animal Allergy

All warm-blooded pets, including dogs, cats, birds, and rodents, can make your asthma worse if you are allergic to them. The flakes or scales from the skin, hair, or feathers of these animals and dried saliva or urine can make people start coughing, wheezing, or get itchy, watery eyes. This is called an allergy. The length of a pet's hair does not matter. There is no such thing as an allergy-free (or "hypoallergenic") dog or cat.



### How to stay away from or control this trigger:

- Remove the animal from the house. If that is not possible, keep the pet outdoors as much as possible. If you must have a pet with fur or feathers, keep the pet out of your bedroom at all times, especially when you are sleeping. If there is forced-air heating in the home and you have a pet, place a special filter over the heating registers. This comes in a roll and can be cut to fit any register.
- Wash the pet once a week, every week.
- Avoid visits to friends or relatives who have pets with fur or feathers.
- You may need to take your asthma quick-relief medicine 20 to 30 minutes before visiting homes or places where animals with fur or feathers are present.
- Choose a pet without fur or feathers.
- Avoid products made with feathers, for example, pillows and comforters.
- Also avoid pillows, bedding, and furniture stuffed with kapok (silky fibers from the seed pods of the silk-cotton tree).

## Cockroaches

The waste products and rotting bodies of these insects are triggers for some people with asthma.

### How to stay away from or control this trigger:

- Get rid of food sources by keeping foods in sealed containers and cleaning up any food messes quickly.



- Use roach traps.
- Block their entrances—caulk or seal cracks in plaster, flooring.
- Dry them out—reduce humidity.
- Do not leave garbage or food exposed (including pet food).
- Keep a clean house—clean up spattered cooking grease, etc.
- Use poison bait, get or traps to control infestation.
- Use professional extermination services, if necessary—but keep the person with asthma out of the house while treating for roaches.
- Thorough cleaning of the dwelling after treatment must take place to remove the dead roaches.
- Treatment of the neighborhood dwellings should also take place, especially in multi-unit buildings.
- Remove old boxes and newspapers from home.

## Molds

Molds produce spores that can be carried in the air. These spores are triggers for some people with asthma.

### How to stay away from or control this trigger:

#### Foods

Try to avoid foods like beer, cider, and certain cheeses, which can contain molds.

#### Indoor Molds

- Clean bathrooms, kitchens, and basements regularly.
- Use your bathroom and kitchen exhaust fans when cooking or bathing to cut down on moisture and odor-making that may cause breathing trouble.
- Keep bathrooms, kitchens, and basements well aired.
- Do not use humidifiers or vaporizers.
- Clean up and repair water leaks. Clean moldy surfaces.
- Use dehumidifiers for damp basement areas. If possible, set the humidity level between 25 and 50 percent. Empty and clean the dehumidifier water tray regularly.
- Avoid carpeting on cement floors.
- Reduce number of indoor plants—when they become dry, mold spores are released.

#### Outdoor Molds

Avoid handling wet leaves, wet newspapers, compost piles, mulches, garden debris or soil.

## Other Smoke

Smoke from other sources can also trigger asthma attacks in some people with asthma.

### How to stay away from or control this trigger:

- Avoid using a wood-burning stove to heat your home.
- Avoid using kerosene heaters.
- Try not to be near outdoor fires, including leaf and grass fires.
- Avoid wood-burning fireplaces. An enclosed, vented gas fireplace is usually not a problem.



# Asthma Environmental Triggers

## Strong Odors and Sprays

Many aerosol sprays, cleaning products, and perfumes are known to cause asthma attacks in some people with asthma.

### How to stay away from or control this trigger:

- Do not stay in your home when it is being painted. Allow enough time for the paint to dry and be aired out. Try to use low or no VOC waterborne paints.
- Avoid perfume and perfumed cosmetics such as talcum powder and hairspray.
- Do not use room deodorizers/air fresheners.
- Use non-perfumed household cleaning products whenever possible.
- Reduce strong cooking odors (especially frying) by using a fan (above stove or free standing) and opening windows.

## Colds and Infections

Some people with asthma will have an attack when they get an infection, such as a cold, the flu, bronchitis, a sore throat, etc. An increase in coughing, wheezing, shortness of breath, or production of yellow/green mucous means that a change is needed in your asthma care. Sinus drainage or infection can also make your asthma worse.

### How to stay away from or control this trigger:

- Talk to your doctor about flu shots.
- Avoid other people with colds or flu.
- Wash your hands or use an anti-microbial hand cleanser often if people around you have a cold or flu. Keep your hands away from your face.
- The proper way to wash your hands is to wet, lather, and vigorously scrub them for 15 seconds. Try singing Happy Birthday to yourself three times all of the way through. That will be plenty of time to kill all of the germs on your hands using just soap. Use a hand towel to turn off the faucet, not your clean hands.
- Talk to your doctor if your allergies or an infection are causing sinus drainage.
- Get medical advice early for any breathing problems. Follow your Asthma Action Plan.

When you are sick, be sure to follow your Asthma Action Plan, rest, drink plenty of fluids (6 to 8 glasses of water each day) to keep mucus loose and your body hydrated. Eat a balanced diet. Do not take over-the-counter cold medicines, such as antihistamines and cough syrup, unless you speak to your doctor first.

## Exercise

Exercise can make some people's asthma worse. About 90 percent of people with asthma have exercise as a trigger. But don't avoid exercise, it is important for your health! The following suggestions should help you exercise without triggering your asthma.

- Work out a plan with your doctor that helps you to exercise comfortably.
- If you have breathing problems when you exercise, you may need to take your quick-relief medicine 20 to 30 minutes before you start to exercise.
- Warm up before exercising and cool down afterwards.
- Avoid exercise if symptoms are present. (this should be infrequent, not more than 2 times a year).
- Avoid triggers that may cause or worsen exercise-induced asthma, i.e., high pollen count, cold air.

## Non-asthma Medications

Certain kinds of medicines prescribed for health problems other than asthma can trigger or worsen asthma symptoms. Medications such as beta blockers, aspirin, non-steroidal anti-inflammatories (NSAIDs), and ace inhibitors can cause problems for some people who have asthma. Ask your doctor if you are taking any of these medicines.

### How to stay away from or control this trigger:

- Ask your doctor about the safety of combining medicines each time a new one is prescribed.
- Talk to your doctor or pharmacist before using any over-the-counter medicines.

## Heartburn or GERD (Gastroesophageal Reflux Disease)

For many people, the valve between the stomach and esophagus does not close completely, allowing stomach acid to travel up the esophagus (the food tube connecting the back of the throat to the stomach). This reflux irritates not only the esophagus, but if it goes high enough, it will also irritate the lungs. People with GERD may have trouble breathing at night or upon awakening.

### How to stay away from or control this trigger:

- Raise the head of the bed up on six inch blocks or use an extra pillow or two to elevate the head – gravity will help keep the stomach contents down.
- Avoid eating foods that can increase the amount of acid in your stomach, like fatty foods, alcohol, caffeine, chocolate, carbonated drinks, citrus, onions, tomatoes, peppermint, spicy foods, and certain spices.
- Don't smoke or drink alcoholic beverages—they increase stomach acid production and cause irritation.
- Wait 2-4 hours after eating before bending over, lying down or going to sleep.
- Wear loose clothing.
- Eat smaller meals more frequently.
- Weight loss, if appropriate, may prove very helpful.
- Take gastric-reflux medications as advised by your doctor.

## Emotions

Although asthma is not caused by emotions, an attack can be caused by the changes in breathing patterns that may go with strong feelings. For some people, laughing, crying, yelling, or anxiety can trigger an asthma attack. Asthma can cause emotional stress all by itself. When you have trouble breathing, it is indeed cause for alarm. Learning to handle stress and anxiety can help you get better control of your asthma.

### How to stay away from or control this trigger:

- Find ways to relax using breathing exercises when you are under stress (ask your doctor or visit your local library to learn more).
- Practice your relaxing and breathing exercises until you can do them easily when needed.

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