

SECTION 2: ASTHMA CAUSES AND TRIGGERS

THE ASTHMA HANDBOOK



Asthma can't be cured but it can be managed. With good asthma management, you should be almost symptom-free and enjoy an active life.

WHAT CAUSES ASTHMA?

The exact cause of asthma is not known. However, experts know that there are some things that make a person more likely to get asthma:

Family history

Asthma tends to run in families. If you or people in your family have allergic diseases such as asthma, hay fever, or eczema, there is a higher chance you will have asthma.

Air pollution indoors and out

Kids whose mothers smoked while pregnant, who grow up in a smoky house, or whose grandmothers smoked, are all more likely to get asthma. Mould in your home may also increase your chances of developing asthma. Some research shows that people who live near major highways and other polluted places are more likely to get asthma.

Work-related (or occupational) asthma

If you work in a place with polluted air, there is a greater chance you will have asthma. If your symptoms improve when you aren't at work or are away from work for an extended period of time, then talk to your doctor. People who work in certain types of jobs can get asthma from things they work with (for example, latex, certain types of dust, spray paints, metals and fumes.)

Viral infections

Sometimes your breathing problems may get worse if you have a cold or flu. Asthma symptoms may last up to six weeks after an infection. For some children, a viral infection can sometimes lead to the development of asthma.

Other possible factors

Sinusitis is an inflammation of the sinuses. Many people with asthma also have sinusitis. If you have both, you may notice that when your sinusitis flares up, your breathing problems from asthma also increase.

Rhinitis or hay fever is an inflammation of the tissue in the nose usually due to an allergy. Treatment of the rhinitis often improves the asthma.

SECOND-HAND SMOKE

Second-hand smoke hurts everyone's lungs. For people with asthma, exposure to second-hand smoke may cause:

- a worsening of symptoms
- increased medication use
- more emergency room visits

Gastro-esophageal reflux disease (GERD), better known as heartburn, is inflammation due to stomach acid backing up into the esophagus (the main tube leading from the mouth to the stomach). The stomach acid may cause breathing problems when it comes in contact with the lining of the throat and airways.

Excessive cleanliness in homes may account for the increase in asthma rates. This theory suggests that when infants and toddlers are raised in very clean homes, their immune systems don't learn how to handle common germs and irritants. When they are exposed to these germs later in life, their immune systems over-react and the result is asthma.

WHAT ARE ASTHMA TRIGGERS?

A trigger is something that makes your asthma worse by irritating your airways. This makes it hard for you to breathe. By knowing what triggers your asthma and by avoiding those things, you can help to control your asthma.

Asthma triggers cause symptoms that:

- usually come on suddenly
- may not last very long
- may be easy to relieve with rescue medication (blue puffer)

Each person will have her or his own set of asthma triggers. Common asthma triggers include smoke, fumes, certain weather conditions, air pollution, strong emotions, exercise, allergies, workplace factors, and viral infections. The following table offers more information on asthma triggers.

COMMON ASTHMA TRIGGERS AND HOW TO AVOID THEM

Exercise

People with asthma **should** exercise.

However, exercise is a trigger for many people if asthma is not under good control.

- Make sure you have good asthma control before exercising.
- Warm up slowly before exercising and cool down afterwards.
- Keep your blue puffer close by.
- Follow your asthma action plan; take your blue puffer before or during exercise.
- Gradually exercise for longer and longer to get in better shape.

Emotional upsets, anxiety

Feeling fear, stress, excitement, worry or anger can make asthma worse.

Feeling anxious about getting an asthma attack can also make your asthma worse.

If you know what to do if you are having breathing problems, you can feel more in control and less anxious.

- Take your blue puffer as directed.
- Try some relaxation and breathing techniques.
- Ask a certified asthma educator for help in dealing with anxiety about asthma. A certified asthma educator can help you understand your asthma, what to expect, and what to do if you feel symptoms coming on.
- See your doctor for more advice on how to cope if you have a lot of stress and your asthma is getting worse. People who learn how to relax and control their stress can have fewer asthma symptoms.

Scents

Strong smells from perfume and cologne, fabric softener, air fresheners and many other products can make breathing worse.

- Avoid using perfumes. Ask the people you live or work with to avoid them as well.
- Make sure your soap, body lotion, shampoo and cleaning detergents are scent free.

Hormones

Some women notice more breathing problems at the time of their period.

Pregnancy also can affect asthma symptoms.

- Follow your asthma action plan (see page 17 for a sample plan) if you're having trouble.
- Pay special attention to your asthma during pregnancy.
- For more information, see **Section 6: Asthma and Pregnancy**.

Fumes and pollution

There are many sources of fumes, indoors or outdoors: Smoke from fireplaces, grills and wood heaters contains many harmful chemicals. Wood smoke can cause breathing problems right away and make asthma worse over time.

Exhaust fumes from cars and trucks can also trigger asthma symptoms and cause long-term damage to lungs.

Household chemicals with strong fumes (for example, cleaning products, glue and paint) can trigger symptoms.

- If at all possible, do not heat your home with wood. If you must heat with wood, visit our website (www.lung.ca) for tips on how to improve the safety and efficiency of your wood-burning appliance.
- Avoid outdoor bonfires and other open burning.
- If possible, avoid spending a lot of time in places that are less than 150 meters (500 feet) from a busy road or near a road used by diesel trucks.
- Use safe, environmentally-friendly cleaning products, such as vinegar and baking soda.
- Wear a protective mask when dealing with chemicals.

Cold air

Outdoors or at an ice rink

- Drape a scarf loosely over your nose and mouth to warm and humidify the air before you breathe it in. You can also buy a cold-weather face mask made for this purpose.
- Breathe through your nose. Your nose can warm and moisten the air.
- If your doctor recommends it, take a puff of your blue puffer before you go outside.

Hot, humid air

- Stay indoors in an air-conditioned room, especially on days that are smoggy or have a high pollen count.

Smoke and second-hand smoke from cigarettes, cigars, pipes and marijuana.

Smoke hangs around long after the cigarette is out. Smoke stays in your clothes, hair, curtains, furniture, walls and stuffed animals.

Smoke that's trapped in all these places continues to make asthma worse.

- Don't smoke. If you do smoke, ask your doctor for help to quit.
- If you live with a smoker, be supportive of his or her efforts to quit. But be firm about your need for a smoke-free home.
- Ask your family and friends to smoke outside your home and car.
- Talk to your employer about ways to make your workplace smoke-free.
- Stay away from smoky places, such as bars and clubs. Ask for smoke-free rooms when travelling.

Most people's triggers are inhaled (breathed in). But asthma symptoms may also be triggered by things you eat, drink, or swallow. For example:

- sulphites (used to preserve some food, such as dried fruit and red wine)
- monosodium glutamate (MSG is a flavour enhancer in some foods)
- Aspirin (never let a child or teen take aspirin)

Some people with asthma also have food allergies. People with any allergy that causes severe symptoms that could be life-threatening (anaphylactic shock) should keep their Epipen with them at all times.

Although triggers bring on the symptoms of asthma in someone who already has the disease, they do not cause asthma. Things that cause asthma are called inducers. Inducers, such as cold and allergies, can make your airways swollen, red and filled with mucus. If you avoid your asthma inducers, you'll have fewer asthma symptoms.

Common asthma inducers include:

- viral infections (colds and the flu.)
- allergies (Read more about allergies in Section 5.)