



ABOUT YOUR HOUSE

FIGHTING ASTHMA IN YOUR HOUSE

CE 46

Asthma is an inflammatory disorder of the airways. It is one of the most common chronic conditions affecting Canadians. Physicians have diagnosed more than 2.2 million Canadians as being asthmatic—12.2 per cent of Canadian children and 6.3 per cent of adults—according to the 1996-97 National Population Health Survey.

Asthma is not only one of the most common chronic conditions among Canadians; it is growing rapidly among children. In 1996, physicians diagnosed four times as many children with asthma as they did in 1984.

While the exact cause of asthma is unknown, it appears to result from a complex interaction of predisposing factors (genetics), environmental factors that may sensitize the airways (such as cat and other animal dander, dust mites, cockroaches) and contributing factors (such as tobacco smoke, respiratory infections and indoor and outdoor air quality).

Avoiding or controlling “triggers” is important in managing asthma. In the home, where people spend a lot of time, you can reduce exposure to dust mites, molds and other contaminants.

NO-COST AND LOW-COST LIFESTYLE CHANGES

General

- Stop smoking.
- Find another home for your pets or house them outdoors.
- Do not use pesticides. Use traps or baits and seal places where insects can enter your house.
- Persuade family members to be perfume-free.
- Throw out harsh chemical cleaners and scented household cleaners. Use mild, unscented detergents for clothes and avoid fabric softeners.
- Ensure that dry-cleaned clothes have no residual odours from the dry-cleaning solvents before you bring the clothes into your house.
- Stop using air fresheners and deodorizers. They mask odours and add pollutants to the air. Managing odour sources, such as garbage and by ventilating the bathroom, means you don't need deodorizers or air fresheners.
- Do not rely on plants to get rid of pollutants. The soil can be a source of molds.
- Avoid using candles and oil lamps. They create particles (soot) that can be breathed.
- Don't idle your car in your attached garage. To minimize contaminants from vehicle exhaust from getting into your house, seal all apparent leaks on the wall between the garage and the house. Keep the garage doors open after you put your car in the garage or do not use the door between your garage and the house.



Heating systems and fuel-based appliances

Unvented or poorly maintained fuel-based appliances can be a source of contaminants. Other pollutants can be distributed by the forced air system. Here are some ways to reduce contaminants.

- Use an electric stove rather than a gas stove.
- Be aware of contaminants from fireplaces and wood stoves.
- Do not use kerosene or similar, fuel-based unvented heaters.
- Maintain your furnace filters regularly. Upgrade to at least pleated-paper filters.
- If you have an electronic air cleaner and you smell ozone, be aware that ozone is a respiratory irritant. Try washing the filter more often. If more-frequent washing doesn't get rid of the ozone smell, switch to a pleated-paper filter.
- Have your furnace serviced by a heating contractor.
- If you find that the return air ducts are dirty, or if the ducts have not been cleaned since the house was built or you moved in, have your ducts cleaned. Ensure that the contractor does not spray chemicals, such as fungicides, disinfectants or essential oils, into the ducts. Note that CMHC research shows that you should not expect to improve your indoor air quality by having ducts cleaned.
- When you replace your heating system, select a high-efficiency furnace.
- Have your chimney checked to ensure that it is not blocked.
- Install smoke alarms.
- Install a carbon monoxide (CO) detector. Units that have a continuous readout to low levels and a memory that displays past levels can tell you the actual CO concentrations in your house. Normal conditions inside and outside homes are between 0 and 2 parts per million (ppm). Note that CO detectors are usually set to sound an alarm when the CO level is high—usually 70 ppm.

Dust mites and molds

Both dust mites and molds love moisture. Here are some easy ways to control dust mites and molds.

- Vacuum thoroughly and often. Use a vacuum cleaner with an HEPA (high-efficiency particulate air) filter or a central vacuum that exhausts to the outside.
- Vacuuming stirs up dust. If you are sensitive to dust, consider wearing a dust mask or N95 respirator when you vacuum.
- Change bedding frequently and vacuum the mattress at the same time. Replace pillows once a year or more often.
- Use as few carpets as possible in your house. Carpets are good dust collectors, as are soft furnishings in bedrooms.
- Dust mites need humidity above 55 per cent to grow. Reducing the humidity in your house to less than 45 per cent helps prevent dust mites.
- Keep your house dry! Molds grow on wet or damp surfaces. Keeping your house dry prevents mold from growing.

No-cost and low-cost control of moisture

Preventing moisture from reaching high levels in your house is the simplest and easiest way to prevent mold. There are several no-cost and low-cost ways to do it.

- If your house has a crawl space with a dirt floor, cover the floor with a continuous sheet of 6-mil polyethylene.
- Make sure water from your roof goes away from your house by leading downspouts away from the foundation.
- Ensure that the ground around your house slopes away from the house.
- When you shower or bathe, use the bathroom fan; allow it to run for 15 minutes or longer.
- Bathroom and kitchen fans should exhaust outside.
- When cooking, use the kitchen fan to get rid of moisture and odours.

Areas of your house below grade, such as the basement or crawl space, usually have higher relative humidity than grade-level and above-grade floors. If you have a basement, use a dehumidifier and run it from spring until fall with the basement windows closed.

- Run a dehumidifier in your basement, even if you have an air conditioner. Remember that an air conditioner dehumidifies only when it is running.
- Do not humidify unless absolutely necessary. First, measure the relative humidity with a hygrometer. Readings of 25 to 35 per cent relative humidity in the winter are acceptable.
- If you need humidity at night, use a portable humidifier in your bedroom. Monitor the relative humidity and cycle the unit on and off as necessary. Air the room out to dry during the day. Clean the humidifier after each use.
- Don't keep unused materials and furnishings in your basement. Materials such as paper, cardboard and clothing absorb moisture and can grow mold. Store as little paper, cardboard and clothing items as possible in your basement and keep them off floors and walls.
- Carpets in the basement or bathroom are likely places for molds to grow. It is best not to have carpets in these areas.
- Don't hang clothes to dry in the basement. Use your clothes dryer and make sure it is vented to the outside.
- Do not store firewood inside the house.
- Do not leave areas of the house unheated. Cold, unheated or damp areas in the house are likely to get moldy. Excessive thermostat setbacks at night also encourage mold growth.
- Act immediately if you have a leak or a flood.
- Clean up small areas of mold yourself, following CMHC's *Clean up procedures for mold in houses* or *Fighting mold: The homeowner's guide*.
- Get professional help if there is a lot of mold.
- Consult CMHC's *The clean air guide* to deal with dirt floors, crawl spaces and cold cellars.

Reducing chemical contaminants

Contamination from common household chemicals can be a threat both to people with asthma and to people who do not have asthma.

- Do not paint or renovate when the house is closed up. Use only new, low-odour paints and check that the paint is not spoiled before using.
- Test paint before using it to make sure it does not leave a residual odour. See CMHC's *Building materials for the environmentally hypersensitive* for information about paints.
- Remove sources of chemical odours, such as perfumes and furniture made of particleboard, medium-density fibreboard, plywood or oriented strand board (OSB) from your bedroom.

- Use hardwood furniture and flooring made of solid hardwood rather than pressed or laminated wood.
- Do not store paints, lacquers and solvents inside your house.

There are no quick ways to making your house a contaminant-free house. Ozone generators are not recommended, because ozone is an irritant that may aggravate asthma. The effectiveness of ozone to control mold and other pollutants is questionable.

Similarly, portable air cleaners may not solve all your indoor air problems. The recommended approach is to find the sources of contaminants and remove or reduce them.

CMHC's *The clean air guide* and a CMHC video, *This clean house*, have more complete information about finding contaminants in your household air.

Sometimes, professional help is needed. For the names of professionals who have taken CMHC's Residential Indoor Air Quality Investigator Training Program, contact your local CMHC office or, call CMHC at 1 800 668-2642.

HELPFUL ABOUT YOUR HOUSE FACT SHEETS

The following, free About Your House fact sheets from CMHC have advice about creating a healthy indoors in your house.		
Title	Description	Order number
<i>A Condominium Owners' Guide to Mold</i>	Special advice for identifying and removing mold in a condo and solving the problems that cause it.	62341
<i>Attic Venting, Attic Moisture and Ice Dams</i>	How do you deal with a leak in the ceiling? How should an attic be properly vented? How do you eliminate ice dams? This fact sheet answers these and other attic-related questions.	62034
<i>Carbon Monoxide</i>	A list of questions and answers dealing with keeping Carbon Monoxide out of your home and to help you choose the right CO detector.	62046

The following, free About Your House fact sheets from CMHC have advice about creating a healthy indoors in your house. (Continued)

Title	Description	Order number
<i>Carpet Streaking</i>	Does your carpet have permanent dark stains near baseboards, air registers or under doorways? Find out what causes carpet streaking and what you can do about it.	62035
<i>Choosing A Dehumidifier</i>	Air that is too damp can cause condensation on windows, water damage to materials, mold and even wood rot. Choose the right dehumidifier to regulate the humidity in your home.	62045
<i>Combustion Gases in Your Home</i>	Do you have a gas- or oil-fired furnace, boiler or water heater? What about a woodstove or fireplace? Take the steps needed to keep combustion gases out of your home.	62028
<i>Fighting Mold—The Homeowners' Guide</i>	Mold can cause allergies or respiratory disease. Learn how to identify and eliminate mold from your home.	60516
<i>Flooring Choices</i>	A quick summary of the advantages, considerations, installation, maintenance, and costs to think about when choosing resilient, laminate and wood flooring, as well as carpet and ceramic tile.	63144
<i>Garbage Bag Airflow Test</i>	This simple test uses an ordinary garbage bag to help you estimate airflow from your furnace registers, bathroom exhaust fan or clothes dryer exhaust.	62288
<i>Home Maintenance Schedule</i>	This fact sheet provides a listing of the regular home maintenance tasks that should be done at various times throughout the year to protect the condition of your house.	63218
<i>Hydronic Radiant Floor Heating</i>	A home-heating option in which tubes with water running through them are placed in concrete floor. Popular in bathrooms and kitchens and can be done for entire new and existing houses.	62030
<i>Insulating Your House</i>	Choose the right insulation to reduce the amount of energy you use and to make your home more comfortable.	62039
<i>Maintaining Your Heat Recovery Ventilator (HRV)</i>	For a clean and healthy living environment, review the seven steps to maintaining your Heat Recovery Ventilator (HRV).	62043
<i>Measuring Humidity in Your Home</i>	Is there condensation on the windows? Are there wet stains on the walls or ceilings? Is there static or sparks whenever you touch something? Diagnose humidity problems in your home.	62027
<i>Painting—Walls, Ceilings and Floors</i>	This fact sheet provides general information on: selecting paints, such as latex (water based) or alkyd (oil based); types of paint and paint finishes, such as low- or high-sheen, sealer, primer, melamine; estimating quantity of paint required; preparing for painting; and painting tips.	63134
<i>Replacing Your Furnace</i>	This fact sheet has information for consumers who are replacing their existing furnace with a new one. It deals with fuel choice, furnace selection and furnace sizing.	63227
<i>Should You Get Your Heating Ducts Cleaned?</i>	Should you get your heating ducts cleaned? Will clean ducts result in improved air quality? When is duct cleaning most appropriate? This fact sheet separates fact from fiction.	62044
<i>The Importance of Bathroom and Kitchen Fans</i>	Choosing the proper kitchen and bathroom fans is important for improving indoor air quality and maintaining ideal humidity levels.	62037
<i>Your Furnace Filter</i>	To reduce exposure to airborne particles, choose the furnace filter that best suits your needs.	62041

To find more *About Your House* fact sheets plus a wide variety of information products, visit our Web site at **www.cmhc.ca**. You can also reach us by telephone: 1 800 668-2642 or by fax at 1 800 245-9274.

Other Useful Information

<i>Clean up procedures for mold in houses</i>	\$3.95	(order #61091)
<i>Building materials for the environmentally hypersensitive</i>	\$29.95	(order #61089)
<i>The Clean Air Guide: How to Identify and Correct Indoor Air Problems in Your Home</i>	\$5.95	(order #61082)
<i>Video This Clean House</i>	\$14.95	(order #61770)
<i>Kit The Clean Air Guide and This Clean House</i>	\$19.95	(order #61827)

©2004, Canada Mortgage and Housing Corporation
Printed in Canada
Produced by CMHC

04-04

Although this information product reflects housing experts' current knowledge, it is provided for general information purposes only. Any reliance or action taken based on the information, materials and techniques described are the responsibility of the user. Readers are advised to consult appropriate professional resources to determine what is safe and suitable in their particular case. CMHC assumes no responsibility for any consequence arising from use of the information, materials and techniques described.