



# Hazardcheck

Hazards in your environment

*What you can do!*



Government  
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Canada 

## Hazards in your environment:

# What you can do!

Canadians spend a great deal of time indoors, so it's important to ensure that our homes are safe and healthy places to live.

This guide includes information on some of the more common health risks that may be present in your home environment and their potential health impacts. It also includes simple steps that you can take to reduce exposure to these hazards.

These steps to creating a healthy home environment are simple to follow — you may be taking some of these actions already. However, you could be surprised at how these little actions are helping to protect your health!

Home health risks come in many shapes and forms. Some come directly from nature itself, such as radon gas which can enter the home through the soil beneath the foundation. Other risks come from substances such as lead or from how we use products.

Environmental health risks can be present in the air, water, soil, or in your home. They can be inhaled or ingested or absorbed through the skin.

Detecting hazards and adopting good environmental health habits for you and your family are easier than you think. The more you know about the health risks that may be present in your home, the better you can protect your health and the health of your family.



If you're concerned about hazards to your health in your work environment, please visit the [Canadian Centre for Occupational Health and Safety \(www.ccohs.ca\)](http://www.ccohs.ca). This site provides information and advice about safe and healthy working environments.

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This guide has information on **what you can do** to create a healthy environment for your child. Just look for boxes like this one, marked with a handprint, for tips on how to protect your child.



Children come into closer contact with their environment than adults. They crawl on the floor and the ground, put their fingers in their mouth, and touch and taste things without knowing if they are harmful. They may also be more sensitive to some harmful substances because of their stage of development.





# What You Can Do: The Basics

Here are some of the basic things you can do to reduce exposures to potential hazards.

## 1 Use household chemicals safely

You probably use many chemical products in and around your home. These products include cleaning liquids and powders, polishes, drain cleaners, paint thinners and windshield washer fluids. Household chemicals should be used, stored and disposed of as recommended.



**A) Read** the label before you buy, and follow the instructions every time you use a household chemical product. By law, the label must include instructions on how to use and store the product safely. It must also show warnings of potential hazards.

**Look for these symbols on household chemical products.** If you don't already know what these symbols mean, learn them. If you follow the instructions, you could prevent an injury. You could even save a life.

### ▪ Contents and containers

The frame around the symbol is important because it tells you what is dangerous — the contents or the container.



This triangle frame around a symbol means that the container itself is dangerous.



This eight-sided frame around a symbol means that the product inside the container is dangerous.



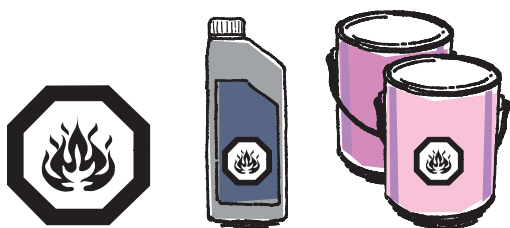
- **Recognize these warning symbols**



**Poison** — the contents of containers with this symbol are poisonous if swallowed, touched or inhaled.



**Corrosive** — the contents of containers with this symbol will burn skin or eyes and can also burn the stomach if swallowed.



**Flammable** — the contents of containers with this symbol catch fire easily if near heat, flames or sparks.



**Explosive** — containers with this symbol can explode if heated or punctured.

- **Each warning symbol also has one of these words under it.**

**CAUTION** — means a temporary injury may occur from improper use of the product. Death may occur after extreme exposure.

**DANGER** — means that the product may cause temporary or permanent injury, or death.

**EXTREME DANGER** — means that being exposed to even a very low quantity of the product may cause death, or temporary or permanent injury. Be very, very careful.

**B) Store** all chemical products in their original containers.

Try not to store products that may release harmful fumes inside your home. These items include paints, solvents, gasoline, fuels or varnishes. Store them in a separate building, if you can, or in an area that is well vented to the outside. Buy only the quantity you need for the job, and discard any leftovers as directed by your municipality or township.

**C) Dispose** of leftover products safely. Check municipal guidelines for instructions.

- Never:
  - burn household chemical containers
  - pour the contents down the drain
  - re-use empty containers for any purposes



#### **Choosing to use a pesticide?**

Follow the above general guidelines for the safe use, storage and disposal of household chemical products. Buy only as much pesticide as you need and ensure that it is a Health Canada registered product by locating the PCP (Pest Control Product) number on the label.

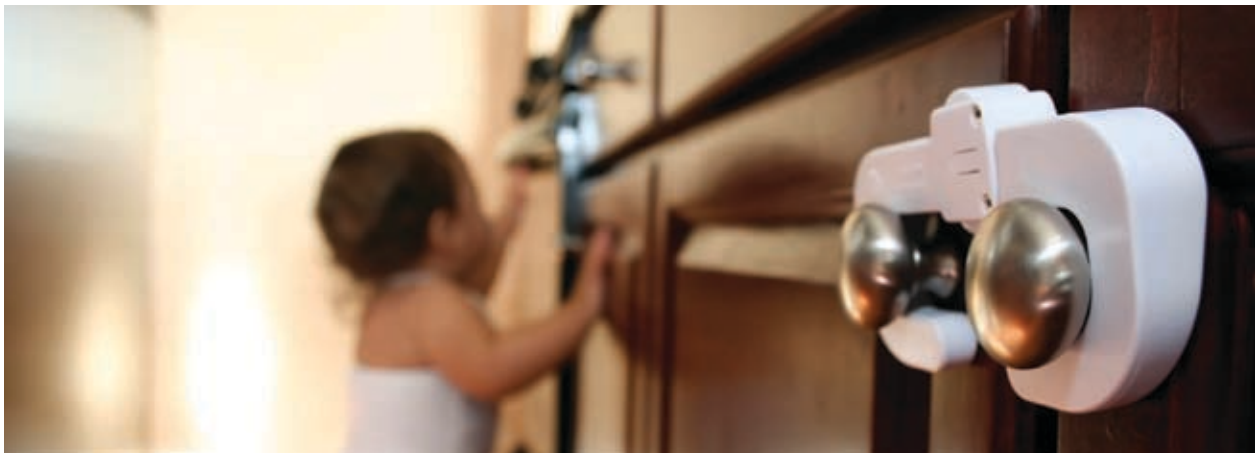
- Lock all household chemical products out of the sight and reach of children.

Household chemical containers, even if sealed or empty, can be dangerous. Never let children play with them.



- Teach children what the warning symbols (see page 5) on the label of a product mean so they can stay safe.
- If you suspect that your child has swallowed a household chemical, call a Poison Control Centre immediately and get medical attention.

– You can find phone numbers of the Poison Control Centre nearest you at the front of your local telephone directory or by searching *Poison Control Centre + (your province or territory)* on the Internet — **keep the number by your phone.**





## 2 Ventilate your home

- **Fresh air.** Make sure you have sufficient fresh air in your home. The consumer publications on ventilation from Canada Mortgage and Housing Corporation are a good source of advice ([www.cmhc.ca](http://www.cmhc.ca)).
- **Use a fan.** An exhaust fan that vents to the outside should be installed above your stove, and it should be turned on, especially when frying.
- **Ventilate.** Open windows when painting, varnishing or installing new carpets.
- **Go low.** Choose low-emission paints, varnishes, glues, wood furniture and building products. Look for an independent certification label, like the *EcoLogo* program that sets standards for sustainable products, to help you select low-emission products.

## 3 Wash your hands often

- Washing your hands often helps to prevent infection and reduce exposure to harmful substances. Washing hands is especially important before every meal.
- To clean your hands thoroughly, scrub with soap and warm water for at least 20 seconds.
- When it's not possible to wash with soap and water, an alcohol-based sanitizer is a good choice.



## 4 Take off your shoes when you come inside

- The soil outside your home can contain substances you don't want inside. Taking off your shoes at the door is one way to keep harmful substances out.



# What You Can Do: Improving Indoor Air Quality

Canadians spend much of their time inside. Good air quality in your home can help prevent breathing problems and other health concerns.

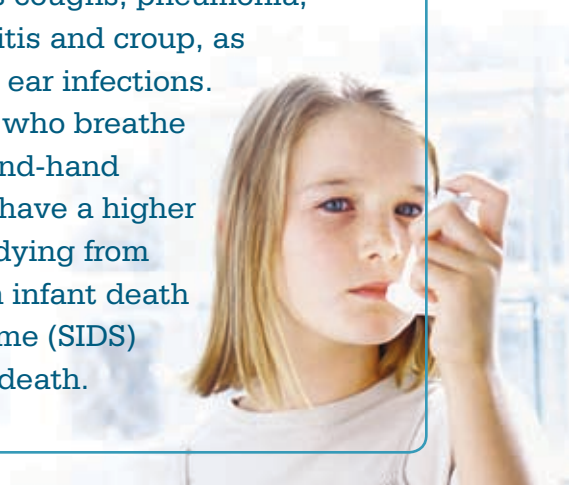
## **1** Avoid second-hand smoke

Make your home and car smoke-free by smoking outside, or not smoking at all.

Second-hand smoke spreads from one room to another even if the door of the smoking area is closed. In addition, potentially harmful chemicals can cling to rugs, curtains, clothes, food, furniture, toys and other materials and can remain in a room or car long after someone has smoked.

Second-hand smoke is especially dangerous to children because their lungs are still growing and developing. Second-hand smoke can even pass through a pregnant woman's placenta.

Infants and children exposed to second-hand smoke are more likely to suffer from asthma and other respiratory problems such as coughs, pneumonia, bronchitis and croup, as well as ear infections. Babies who breathe in second-hand smoke have a higher risk of dying from sudden infant death syndrome (SIDS) or crib death.





### **What are the health effects?**

Second-hand smoke hurts everyone and contains the same 4,000+ chemicals that are inhaled by a smoker. At least 50 of the chemicals found in second-hand smoke are known to cause cancer. These chemicals contribute directly to diseases like asthma, heart disease and emphysema — for smokers and non-smokers alike.

### **How do I know if I have a problem?**

If anyone is smoking in your car or home, you and your family are being exposed to second-hand smoke.

### **What can I do?**

Protect your family from the health effects of second-hand smoke by making your home and car 100% smoke-free.

- No level of ventilation will eliminate the harmful effects of second-hand smoke. Opening a car or room window may cause the smoke to be blown directly back inside.
- Air fresheners only mask the smell of the smoke and do not reduce the harm in any way. Even air filters (air purifiers) cannot remove all of the cancer-causing agents.



Health Canada advises against using air purifiers that intentionally release ozone to clean the air. Ozone is a gas that can irritate your eyes, nose, throat and lungs and is itself a major air pollutant.



## 2 Keep carbon monoxide out of your home

Carbon monoxide (CO) is a harmful gas that has no colour, smell or taste.

CO forms whenever you burn fuel such as propane, natural gas, gasoline, oil, coal and wood. It is also contained in second-hand smoke. If furnaces, fireplaces, gas stoves or water heaters are improperly installed, or if they malfunction, they can release CO into your home.

### **What are the health effects?**

CO can cause health problems before people even notice that it is present.

When you breathe in CO, it reduces your body's ability to carry oxygen in the blood.

Even at low levels of exposure, CO can cause headaches and make you feel tired. The health effects at higher levels can be much more serious and can even lead to death.

### **How do I know if I have a problem?**

CO can be detected only with a carbon monoxide detector.

### **What can I do?**

#### ■ **Maintenance is the key!**

- There is no substitute for good maintenance of fuel-burning appliances because CO detectors may not detect low levels of CO that can, over time, have effects on your health.
- Make sure appliances such as furnaces, fireplaces, gas stoves and water heaters are well maintained and inspected by a professional at least once a year.



*Carbon monoxide detector*

#### ■ **Get a CO detector!**

- Put at least one carbon monoxide (CO) detector in your home. A smoke alarm helps protect against fires, but will not warn you of potentially harmful CO in your home. It is important that you have a CO detector in your home as well as a smoke alarm.
- Install a Canadian Standards Association (CSA) certified CO detector with an audible alarm to warn you of high CO concentrations in your home. The most important place to install a detector is in hallways, outside of sleeping areas. Make sure to follow the manufacturer's suggestions on how to install and use the detector, and when it needs to be replaced. You can use a marker to remind yourself when it was installed and when it should be replaced.

#### ■ **Leave it outside!**

- Never use a barbecue indoors.
- Don't use kerosene or oil space heaters or lamps in enclosed areas unless they're specifically designed for indoor use.

#### ■ **No idling indoors!**

- Don't let vehicles idle in the garage, even when the garage door is open.
- Never run gas-powered lawnmowers, trimmers, snow blowers or other machines in the garage.
- Keep the door between your house and the garage closed.



### **3 Test your home for radon**

Radon is a gas that is produced naturally by the breakdown of uranium in the ground and can get into your home undetected. You can't see it, smell it, or taste it. In confined spaces like a house, radon can build up to high levels and over time become a health risk.

Almost every home in Canada has some radon, but concentrations vary from one house to another, even if they are next door to each other. The amount of radon in your home will depend on factors like the amount of uranium in the ground, the pathways available into your home (such as cracks in the foundation, crawl spaces and sump holes) as well as how your home is ventilated.

#### ***What are the health effects?***

Radon exposure increases your risk of developing lung cancer. It is the second leading cause of lung cancer after smoking.

The risk of cancer depends on the level of radon in your house, how long you are exposed and whether you smoke. Exposure to radon and tobacco use together can significantly increase your risk of lung cancer.

#### ***How do I know if I have a problem?***

The ONLY way to know if you have a radon problem is to test your home. It is simple and inexpensive. Health Canada recommends using a long-term test device for a minimum of three months. The best time to test is between September and April when your windows are mostly closed.

Radon test devices are available from some home improvement retailers or can be ordered by phone or over the Internet. Radon testing can also be performed by a trained service provider.

#### ***What can I do?***

If the radon level in your home is above the Canadian guideline of 200 becquerels/metre<sup>3</sup>, you need to fix it. The higher the radon level in your home, the sooner it needs to be fixed.

If your home tests above the guideline, here are some ways to reduce the level of radon:

- Increase the ventilation to allow an exchange of air.
- Seal all cracks and openings in foundation walls and floors, and around pipes and drains.
- Renovate existing basement floors, particularly earth floors.

## 4 Keep humidity levels in your home down to reduce the risk of mould

Mould is a type of fungus that comes in a variety of colours and can grow in damp areas inside your home. Mould grows where there is too much humidity from water leaks, cooking, showering, flooding, etc. It can grow on wood, paper, fabrics, drywall, insulation, inside walls or above ceiling tiles. When mould finds a damp place to grow, it can contribute to poor indoor air quality.

### What are the health effects?

People living in homes with mould and damp conditions are more likely to experience:

- Eye, nose and throat irritation
- Coughing and mucous build-up
- Wheezing and shortness of breath
- Worsening of asthma symptoms
- Other allergic reactions

### How do I know if I have a problem?

- Not all mould is obvious to detect, so it is important to check for the presence of mould anywhere that is damp, especially where water damage has occurred.
- Inspect your home for visible signs of mould or areas with excessive moisture. Look for stains or discolouration on floors, walls, window panes, fabrics and carpets or a musty “earthy” odour. If necessary, contact an expert for help.



### What can I do?

- Prevent mould from growing by making sure you:
  - Check for wet spots in your house, such as damp basements, leaking sinks, cold closets on exterior walls, etc.
  - Repair any water leaks as soon as you notice them; clean up immediately after any flood.
  - Use the exhaust fans when cooking or showering and check that your clothes dryer and range hood vent to the outdoors.
  - Seal your tubs and sinks tightly.
  - Throw out basement clutter.
  - Measure humidity and keep it low, about 50% in summer and 30% in colder weather. If necessary, use a dehumidifier.
- If you discover mould:
  - **If the contaminated surface is small:** clean the mould by yourself, by using water and dish detergent. There’s no need to use bleach.
  - **If the affected area is large:** take precautions to protect your health. In such a case, consider hiring a professional to clean it up.
  - Fix the underlying cause, whether due to water damage or excessive humidity.



If you suspect a mould problem that you cannot solve on your own, Health Canada and the Canada Mortgage and Housing Corporation (CMHC) recommend that you contact a trained Indoor Air Quality Investigator for advice on building-related aspects of air quality.

These investigators can do a visual inspection to identify areas of concern and make recommendations for improving the situation.

CMHC provides training for building inspectors and other professionals and can give you a list of contacts in your area. Go to [www.cmhc.ca](http://www.cmhc.ca).



If you rent your home or workspace, speak to your landlord about any mould problems. Landlord and tenant's rights and obligations fall under provincial and territorial jurisdiction. Information on landlord/tenant issues, rights and responsibilities is available from your provincial/territorial government.





## What You Can Do:

# Reducing Exposure to Lead

Lead is a highly toxic metal that occurs naturally in the earth's crust and has many industrial uses.

### **What are the health effects?**

Lead can cause many harmful health effects, especially to the nervous system, blood system and kidneys.

Exposure to even low levels of lead can cause learning disabilities and other harmful effects on children's development. Pregnant women must also be careful, as lead can pass through the placenta.

One way to reduce children's exposure to lead is to reduce dust in your home. Dirt and household dust are among the main sources of lead for children under six years of age. Dusting, vacuuming and wet-mopping will all help to keep down levels of dust.





## 1 Lead in paint

If your home was built before 1960, lead-based paint was probably used both inside and outside. For homes built between 1960 and 1990, small amounts of lead may be in some of the paint used.

### *How do I know if I have a problem?*

If you think the paint in your home may contain lead, you can have it tested.

- A certified inspector can measure paint lead levels in your home or you can mail paint chip samples to a testing laboratory.
- To find an inspector or laboratory in your area, contact the Standards Council of Canada ([www.scc.ca](http://www.scc.ca)) or the Canadian Association for Laboratory Accreditation ([www.cala.ca](http://www.cala.ca)), search online or check your local telephone directory for *Laboratories — Analytical & Testing*.



### *What can I do?*

- If the lead-based paint is in good condition and is not on a surface that a child might chew, the risk of exposure is minimal. It's best to leave it alone or paint over it.
- If the lead-based paint is cracking, chipping, flaking or peeling or if it is on a surface that a child might chew, here is how you can remove the paint:
  - Do not use sanders, heat guns or blowlamps to remove paint in older homes. This can create dust and fumes that contain lead.
  - Use a chemical paint stripper, preferably one with a paste that can be applied with a brush.
  - Chemical strippers contain potentially harmful substances themselves, so use them carefully. Keep children and pregnant women away from the work area and always wear goggles, gloves and a good-quality breathing mask.
  - Consult Health Canada's booklet *Lead in Your Home* before starting any renovation project in an older home.

## 2 Lead in plumbing

Plumbing systems in homes built before 1975 may have lead pipes (also called lead service lines) or have solder or other plumbing parts that contain lead. This lead can leach into water sitting in pipes.

### **How do I know if I have a problem?**

You can check with your municipality or water utility to see if there are lead service lines in your area. A plumber can identify whether your service line (supply pipe) is made of lead. You can also look at the pipe entering your home, and if it is soft or easily dented when scraped with a knife, or if it is greyish-black, it is likely made of lead or contains lead.


If there are lead service lines or other lead-based materials in your plumbing system, you can look into having your tap water tested for lead content. Some municipalities have an established sampling program, while others may sample and test it if you ask them. In some cases, you may have to arrange for your own sampling and analysis by an accredited laboratory.

To find a laboratory in your area, contact the Standards Council of Canada ([www.scc.ca](http://www.scc.ca)) or the Canadian Association for Laboratory Accreditation ([www.cala.ca](http://www.cala.ca)), search online or check your local telephone directory for *Laboratories — Analytical & Testing*.



### **What can I do?**

- Always let tap water run until it is cold before using it for drinking, cooking and especially for making baby formula. This is particularly important when water has been sitting in the pipes for long periods of time, such as first thing in the morning.
- Don't use water from the hot water tap for cooking or drinking.
- Contact your local Public Health Department if you're concerned about elevated lead levels in your home's drinking water.



To find out what else you can do to reduce children's exposure to lead, consult Health Canada's booklet *Lead in Your Home*.





# What You Can Do: Safe Use of Consumer Products

## 1 Check the latest news about possible health risks

- Health Canada provides advisories and warnings to help educate Canadians about potential health risks associated with the unsafe use of certain consumer products. Visit Health Canada's consumer safety portal at [www.health.gc.ca/consumer](http://www.health.gc.ca/consumer) to access the following services:

- Product advisories and warnings.
- Cosmetics warnings and recalls.
- A subscription to the Consumer Product Safety electronic newsletter so that you can receive the latest news and information about Health Canada's work in the area of consumer product safety.

Subscribers receive updates when new information, consumer advisories and warnings, consumer product recalls, and consultation documents on consumer product safety are posted on the Health Canada website.

### Know the risks and make sure your child is safe



Children are naturally curious and do not easily recognize and avoid hazards. Many injuries can be avoided by supervising children carefully and by making their surroundings safer.

- Consult Health Canada's booklet *Is your child safe?* It provides information on a range of topics, including blind and curtain cords, baby slings, pacifiers, play-grounds and strollers, etc.
- Federal law sets strict safety requirements for children's toys. Consult Health Canada's pamphlet *Toy Safety Tips* for information on choosing safe toys and using them safely.





## 2 Turn down the volume — noise from consumer products

The loudest noise from consumer products comes from personal stereo systems that combine headphones or earphones with portable music players. The players might be radios, or devices that play compact discs, cassettes or stored music files such as MP3 players. Some toys also make very loud noises.

### **What are the health effects?**

The regular use of some consumer products, such as sound-making toys and personal stereo devices at very loud levels, can lead to permanent hearing loss over time.

### **How do I know if I have a problem?**

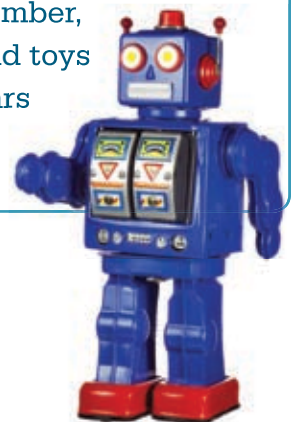
- If someone a metre away must shout to be understood, the sound level of the sound-making toys or personal stereo device is probably too loud and may be hazardous.

### **What can I do?**

- Limit your exposure to loud noise.



Avoid buying children's toys that produce high sound levels. Look for sound-making toys that have volume-control features or an on-off switch so that sound can be kept low or turned off. Remember, children may hold toys closer to their ears than adults.





## Safe use of consumer products

- Subscribe to the Consumer Product Safety electronic newsletter at [www.health.gc.ca/consumer](http://www.health.gc.ca/consumer).
- Know the risks specific to children and make sure your child is safe.
- Turn down the volume on personal stereo systems and toys.



To learn more about these and other environmental health risks, please visit

**[HealthyCanadians.gc.ca/Hazardcheck](http://HealthyCanadians.gc.ca/Hazardcheck)**

or call

**1 800 O-Canada**

**(1-800-622-6232)**

**TTY 1-800-926-9105**



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# Hazardcheck

## *What you can do!*



## The Basics

- Read the label before you buy and follow the instructions every time you use a product.
- Ventilate your home, open windows when painting, varnishing or installing new carpets and use a fan that vents to the outside when cooking, especially when frying.
- Choose low-emission paints, varnishes, glues and other products.
- Wash hands often and take off your shoes when coming inside.



## Inside Your Home

- Make your home and car smoke-free by smoking outside, or not smoking at all.
- Have furnaces, fireplaces, gas stoves and water heaters inspected each year, and install a carbon monoxide detector.
- Test your home for radon.
- Keep humidity levels in your home down to reduce the risk of mould.



To learn more about these and other environmental health risks, please visit [HealthyCanadians.gc.ca/Hazardcheck](https://www.healthycanadians.gc.ca/hazardcheck)

To order Health Canada publications, please visit [healthcanada.gc.ca](https://www.healthcanada.gc.ca)

Or call 1 800 O-Canada (1-800-622-6232), TTY 1-800-926-9105

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