

US EPA ARCHIVE DOCUMENT

# Safer Alternatives

Following the 3Rs (Reduce, Reuse, Recycle) principle and disposing of your garbage in a safer way will help you protect your health and the environment.

**Reduce:** Avoid disposable items. Buy products in bulk instead of individually wrapped or single-serving sizes. Buy durable products and products that can be recharged, repaired, or refilled.

**Reuse:** Donate items you no longer need such as clothing, furniture, books, magazines, and toys to relatives, friends, or charities. Mend and repair rather than discard or replace.

**Recycle:** Separate the recyclable items from your garbage and prepare them for collection or for drop-off at a local recycling depot.

**Compost:** Install a backyard compost bin for composting your kitchen and yard waste or, if available, participate in your community's organics collection program.

**Dispose:** Put your garbage out for collection or bring it to your local landfill.

To find out more about reuse, recycling, composting, and disposal opportunities in your area, please contact your local waste management department.

For more information on the effects of open burning of garbage, please contact

Environment Canada at  
**1-800-668-6767**  
or visit us on our website at  
**[www.ec.gc.ca](http://www.ec.gc.ca)**

## Further Reading

*Canadian Centre for Pollution Prevention:  
Great Lakes Trash and Open Burning Website*  
[www.openburning.org](http://www.openburning.org)

*Canadian Lung Association:  
How Open Burning Hurts Human Health*  
[www.lung.ca/protect-protegez/  
pollution-pollution/outdoor-exterior/  
heating-chauffage\\_e.php](http://www.lung.ca/protect-protegez/pollution-pollution/outdoor-exterior/heating-chauffage_e.php)

*Health Canada: The Health Effects  
of Dioxins and Furans*  
[www.hc-sc.gc.ca/hl-vs/iyh-vsv/envIRON/  
dioxin-eng.php](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/envIRON/dioxin-eng.php)

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Environment  
Canada

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Canada



What Goes **Up**  
**Must Come**  
**Down**

**Open Burning of Garbage  
Is Harmful to Your Health  
and the Environment**



Canada



## What Is Open Burning?

Open burning refers to burning garbage in barrels, open pits, outdoor furnaces, woodstoves, or fireplaces. Open burning of garbage is much more harmful to your health and the environment than you may think.

*Some people may say, "We've been burning garbage for ages, so what's the big deal now?"*

We now understand that open burning of garbage—even seemingly harmless materials like paper, cardboard, yard waste, and construction debris—releases a hazardous mixture of cancer-causing compounds and other toxic substances when open-burned.

## Open Burning Bylaws

*Many Canadian communities have developed bylaws prohibiting open burning or restricting the types of materials that can be open-burned. To complement these bylaws, some communities are issuing burn permits and promoting safer alternatives. For example, when it comes to managing fallen leaves, communities are encouraging residents to either mulch them into the lawn with a mower or compost them in their backyards or through an organics collection program.*

## Up in Smoke

Open burning of garbage poses health risks to those exposed directly to the smoke. It especially affects people with sensitive respiratory systems, as well as children and the elderly.

In the short term, exposure to smoke can cause headaches, nausea, and rashes. Over time, it can increase the risk of developing heart disease. Some of the pollutants contained in the smoke from open burning of garbage can include:

- Dioxins
- Furans
- Arsenic
- Mercury
- PCBs
- Lead
- Carbon monoxide
- Nitrogen oxides
- Sulphur oxides
- Hydrochloric acid



***Some of these pollutants can also end up in the ash that is left behind from open burning of garbage.***

## Dioxins, Furans, and Your Health

One of the greatest concerns with open burning of garbage is the health risks posed by the release of dioxins and furans into the environment. Exposure to dioxins and furans has been linked to:

- Certain types of cancers
- Liver problems
- Impairment of the immune system, the endocrine system, and reproductive functions
- Effects on the developing nervous system and other developmental events

In Canada, the open burning of garbage produces more dioxins and furans than all industrial activities combined.

## Dioxins, Furans, and Your Environment

Since open burning of garbage is more common in rural and agricultural areas, there is particular concern for high levels of dioxins and furans settling on crops, in our streams, and in our lakes. Dioxins and furans produced by the open burning of garbage are deposited on plants, which are eaten by animals. The dioxins and furans are absorbed by these animals and stay in the food chain until they ultimately end up in our meat and dairy products. In fact, over 90 percent of our intake of dioxins and furans is from our diet.