



IT'S YOUR HEALTH



Disposal and Use of Pharmaceuticals

The Issue

Traces of pharmaceuticals are being detected in the environment, primarily in water (surface water, coastal water, groundwater, and drinking water) and soil. There is growing evidence that throwing pharmaceuticals (prescription drugs and non-prescription/over-the-counter drugs) and other personal care products in the garbage, or flushing them down the toilet or the sink is contributing to this issue, and consequently may have a harmful effect on the environment and indirectly, on human health.



[pharmaceutical traces in the environment](#), and there is increasing concern that chemicals from pharmaceuticals and personal care products may be affecting aquatic species, such as fish, mussels, and algae, and human health.

Current Canadian [pharmaceutical take-back programs](#) offered to the public can reduce the entry of pharmaceuticals into the environment. Currently, these programs are estimated to collect only a fraction of unused and expired pharmaceuticals.

The Risks of Improper Disposal of Drugs

When prescription or over-the-counter drugs are thrown into the garbage, or flushed down the sink or toilet, their chemical components may be added to the water supply or soil. The presence of these substances in the environment is becoming an important national and international issue. Although the concentration levels of these products in the environment may be very low, they may be enough to have adverse effects on the environment and, indirectly, on human health. Of particular concern are the potential adverse effects of

Background

Over the past few decades, there has been a dramatic increase in the number of new human and veterinary drugs introduced to the Canadian marketplace. For over 20 years, scientists and environmentalists have been aware of



cumulative, long-term exposure to trace amounts and mixtures of pharmaceuticals on vulnerable populations, including pregnant women, newborns, and children.

Although there is not yet any solid evidence, there is also some concern about leftover prescription drugs, which are disposed of into the environment, possibly adding to the problem of antibiotic resistance. [Antibiotic resistance](#) is believed to be caused by the overuse or inappropriate use of prescription drugs, such as antibiotics, in preventing or treating infection and disease in people, animals and plants. When antibiotics are used inappropriately (for example, a drug prescribed to fight infection is not taken as directed), the weak germs are killed but the stronger, more resistant ones survive and multiply. These [drug-resistant germs](#) make it harder to prevent and treat infections and diseases because fewer antibiotics are effective against them.

Recommended Use and Disposal of Drugs

You can help lessen the impact of these risks by disposing of drugs in a responsible way.

- Take drugs as directed by your doctor or pharmacist. Don't stop taking a drug part way through the course of treatment, unless you are having a [serious adverse reaction](#), without first discussing it with your doctor. Even if you feel better, use up the entire prescription as directed to make sure that all the germs are destroyed.
- Do not put expired or unused pharmaceuticals in the garbage or down the toilet or sink.
- Check to see if your pharmacy has a [drug take-back program](#) that collects and disposes of the public's unused and expired drugs in an environmentally safe manner. Most pharmacies do, and programs exist in many provinces and territories across the country.
- If your area does not have such a program, contact your municipality to see if it collects drugs. Various municipalities have put in place different collection modes for household hazardous waste including drugs. Those include collection days, mobile depots, and permanent depots. If your municipality offers such a program, dispose of your expired and unused drugs via one of these modes.
- At least once a year, go through your medicine cabinet and remove all prescription and non-prescription drugs that are old or that you no longer take. Take them all back to your pharmacy or to your municipal waste disposal depot.
- If you don't know if a drug is still safe to use, check with your pharmacist.

Furthermore, by collecting the public's unused and expired pharmaceuticals, take-back programs can protect human health from risk of accidental poisonings, abuse, recreational use, etc. resulting from keeping unused, unwanted and expired pharmaceuticals in the home.

The Government of Canada's Role

The Canadian Environmental Protection Act, 1999 is Canada's primary federal law that protects the environment and human health. It is jointly administered by [Environment Canada](#) and [Health Canada](#). Health Canada is now developing new Environmental Assessment Regulations (EARs) for new substances in products regulated under the *Food and Drugs Act*, including [pharmaceuticals](#), [personal care products](#), [natural health products](#), [veterinary drugs](#) and other products. Health Canada is also engaging in discussions on developing non-regulatory initiatives related to recommended use and disposal for products regulated under the *Food and Drugs Act*.





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Need more info?

- For more information on antibiotic resistant germs, go to Health Canada's *It's Your Health* article on **Antibiotic Resistant Germs** at: <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/antibio-eng.php>
- For more information on safe use of medicines, go to Health Canada's *It's Your Health* article on **Safe Use of Medicines** at: <http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/med/safe-secure-eng.php>

For more information on Canadian disposal programs, visit the following web sites:

- National Association of Pharmacy Regulatory Authorities' **Resources for Pharmacy Operators** at: http://www.napra.org/pages/Practice_Resources/resources_for_pharmacy_operators.aspx?id=2128
- The Post Consumer Pharmaceutical Stewardship Association's **Return Expired Medications** at: http://www.medicationsreturn.ca/home_en.php
- The College of Veterinarians of Ontario's Info Sheet, **Recording, Security and Disposal of Controlled Substances** at: <http://www.cvo.org/uploadattachments/Recordingdisposal.pdf>

For information on Health Canada initiatives, visit the following web sections:

- Health Canada's **Environmental Impact Initiative's** at: <http://www.hc-sc.gc.ca/ewh-semt/contaminants/person/impact/index-eng.php>
- Health Canada's **Best Management Practices** at: <http://www.hc-sc.gc.ca/ewh-semt/contaminants/person/impact/manage-gestion/index-eng.php>

For safety information about food, health and consumer products visit the **Safe Consumers** website at: www.health.gc.ca/consumer

For more information on health and safety issues, go to Health Canada's *It's Your Health* web section at: www.healthcanada.gc.ca/iyh

Or, you can also call toll free at 1-866-225-0709 or TTY at 1-800-267-1245*