

## THE ISSUE

There is growing evidence that throwing out or flushing Pharmaceuticals and Personal Care Products (PPCPs) into the water system may have a harmful effect on the environment.

## BACKGROUND

Over the past few decades, there has been a dramatic increase in the number of new human and veterinary drugs as well as personal care products introduced to the Canadian marketplace. These drugs and products are adding to the array of chemicals and other substances present in the environment. For the past 20 years, scientists and environmentalists have been aware of pharmaceutical traces in the environment.

## THE RISKS OF IMPROPER DRUG DISPOSAL

When PPCPs 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 emerging as an important national and international issue.



Although the concentration levels of these products in the environment is very low, they may be enough to cause adverse effects in the environment and to human health. There are also concerns over the effects of medications ending up in drinking water sources.

Presently there are no Canadian Drinking Water Quality Guidelines (CDWQG), Ontario Drinking Water Quality Standards (ODWQS) or Provincial Water Quality Objectives (PWQO) for PPCPs, nor have any regulated standards been established in North America or Europe. Government agencies are continuing to evaluate and add to the scientific research on this subject.

## DO NOT TAKE OLD MEDICINES - THEY MAY NOT WORK OR MAY HARM YOU. EVERY SPRING, CLEAN OUT YOUR MEDICINE CABINET!

- Go through the medicines you have at home.
- Remove medications that are old or that you no longer take.
- Take out old or expired non-prescription medications including cough/cold, pain, first aid, vitamin and herbal products.
- Remove medicines no longer in their original containers or with labels that can't be read.
- Take out medicines that have changed colour, smell or taste.

## GETTING RID OF YOUR MEDICATIONS SAFELY

- Bring all the medicines that you have cleaned out to your pharmacy - they will be disposed of safely.
- If you don't know if a medicine is still good, ask your pharmacist.
- Don't throw medicine in the garbage - children or animals may get into it or it can migrate through the landfill site into local groundwater reserves.
- Don't flush medicine down the toilet - all of the water you use is eventually returned to the environment.

## MEDICATIONS THAT YOU FLUSH OR POUR DOWN YOUR DRAIN MAY AFFECT YOUR LOCAL DRINKING WATER SOURCES, RIVERS, LAKES OR COASTAL WATERS.

## DO NOT FLUSH UNUSED MEDICATIONS AND DO NOT POUR THEM DOWN A SINK OR DRAIN!

Lakehead Region Conservation Authority  
130 Conservation Road,  
P.O. Box 10427  
Thunder Bay, ON P7B 6T8  
(Phone) 807-344-5857  
(Fax) 807-345-9156

(E-mail) [info@lakeheadca.com](mailto:info@lakeheadca.com)  
(Website) [www.lakeheadca.com](http://www.lakeheadca.com)

# Protect Source Water... "Take Pride in Your Property DON'T DUMP DRUGS DOWN THE DRAIN!"



## How we dispose of and handle prescription and non-prescription medicines in our homes can make a difference in protecting our sources of drinking water.

### Did You Know?

Traditional advice was to flush unused, unneeded or expired medications down the toilet. That advice has changed because when you flush medications down the toilet or pour them down the drain, they flow through your a sanitary sewer system to a wastewater treatment facility or septic system. Recent studies, using methods which detect low concentrations of compounds, show that municipal wastewater treatment facilities may not always successfully remove medications or their byproducts. This treated wastewater is then released into local waterways or groundwater where it may harm humans, fish and wildlife.

# “Don’t Dump Drugs Down the Drain!”

Many people toss expired or unused Pharmaceuticals (Medicines) and Personal Care Products (PPCPs) in the trash or flush them down the toilet. Some components of these drugs and PPCPs end up in our lakes, streams, and water supplies. The improper disposal of unused medications by flushing them or pouring them down the drain may be harmful to fish, wildlife and their habitats. Additionally, throwing medications away in the garbage may be dangerous since they can end up in the mouths of children or household pets.

## Frequently Asked Questions on PPCP Disposal

**Q:** Why can't I just dump pills into my kitchen trash can? Do I really need to go through all these additional steps?

**A:** Unfortunately, when pills are thrown directly into the trash, it can lead to unintended exposure to people or animals. People may go through the trash to obtain unused medication or personal information found on discarded prescription bottles. Improperly disposed of medicine and personal care products can migrate into ground and surface water drinking sources through landfill sites, individual septic systems and releases from local wastewater treatment plants with adverse environmental impacts.

**Q:** If I flush medicines down the toilet or pour them down the sink aren't they removed at the wastewater treatment plant?

**A:** New technology is capable of detecting low concentrations of chemical wastes, including small amounts of pharmaceuticals (medicines). These studies show municipal wastewater treatment facilities do not remove some pharmaceutical wastes and their byproducts from drinking water.

**Q:** How do pharmaceutical ingredients get into the environment?

**A:** Pharmaceuticals detected in surface waters come primarily from patient use. Small amounts of medicines pass through the human body without being completely metabolized and make their way into surface waters through the municipal wastewater treatment system. In addition, sometimes people flush unused or expired medications or pour them down the drain.

**Q:** What do we know about the impacts of medications found in water on fish and wildlife?

**A:** Many pharmaceuticals and their byproducts have been detected in waters. Researchers are currently examining the potential effects of these compounds on fish and wildlife.



## Where can I take my unwanted PPCPs?

**DRUGStore Pharmacy @ Superstore**  
600 Harbour Expressway 343-4535

**Janzens Pharmacy**  
296 Bay Street 345-1191

**Thunder Bay IDA Pharmacy**  
421 Victoria Avenue 475-0012

**Advantage Pharmacy @ Curans Health Centre**  
384 Fort William Road 346 8199

**Woit's Pharmacy**  
100-1265 Arthur St. E. 622-7079

**Canada Safeway Pharmacy**  
115 Arthur Street West 475-4470  
1015 Dawson Road 768-0508  
70 Court Street North 345-1719

**Zellers Pharmacy**  
Your local Zellers Pharmacy will accept your unused medicines and personal care products.

**Shoppers Drug Mart**  
Your local Shoppers Drug Mart will accept your unused medicines and personal care products.

If your local pharmacist has not been included on this list please inquire with them before returning any unused prescription medicine or personal care products.

## Protect the sources of drinking water by being environmentally responsible!