

What's the Problem?

Why medicine disposal is a serious concern

Expired or unwanted medicines can pose a hazard to public safety and to the environment, if they are not safely disposed of. Products of concern include both prescription and over-the-counter medications.

The three main hazards are:



Possible poisoning from accidental ingestion, particularly among young children and family pets, if medicines are thrown in the trash or not stored properly.

Illegal use or theft, including identity theft, from discarded containers that display personal patient information.

Contamination of water resources can occur if medicines are placed in the trash, resulting in reproductive and developmental problems in fish and other aquatic wildlife.

1 Daughton, C. (2003). "Cradle to Cradle Stewardship of Drugs for Minimizing Their Environmental Disposition While Promoting Human Health—Rationale for and Avenues Toward a Green Pharmacy". Environmental Health Perspectives. 111 (5): 757-774.

FOR ADDITIONAL INFORMATION:

Information kit from IL-IN Sea Grant
Illinois-Indiana Sea Grant Program
(312) 353-4383

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U.S. Environmental Protection Agency
website on the potential environmental
impacts of pharmaceuticals:

www.epa.gov/nerlesd1/chemistry/pharma

U.S. Geological Survey (USGS) provides research on the
presence of pharmaceuticals in the environment:

<http://toxics.usgs.gov/regional/emc>

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County of McHenry
Division of Water Resources

Unused & Expired Medicines

Groundwater and Medication Disposal: The Issue - The Solution

How Do Pharmaceuticals Enter The Environment?

Pharmaceuticals enter the environment through improper disposal methods including: flushing them down the toilet, dumping them down the drain, and throwing them in the trash. Pharmaceuticals can also be released into waterways through runoff from commercial animal feeding operations and aquaculture, and from fields where manure and bio-solids have been applied..

How Can Medications Impact The Environment?

One might imagine that any substance safe enough for humans and pets to ingest, such as medication, would not harm the environment . . . However, scientists are beginning to find that isn't true.

Expired or unwanted medicines, if flushed down the toilet or drain, are a **source of pollution in wastewater**. Currently, **wastewater treatment plants and private sewage systems are not designed to remove medication from the waste water**. Therefore, if unused and improperly disposed of medications are released into streams and lakes, they can affect fish and other aquatic wildlife. Additionally, improper disposal can allow medications to enter into the groundwater system—McHenry County's only source of drinking water.

What happens...Some aquatic organisms living in waters downstream from wastewater treatments plants, have shown signs of developmental and reproductive problems. Researchers currently are working to determine whether pharmaceuticals have caused these effects, and at what concentrations they are acceptable in our water supply.

How Can I Reduce The Quantity Of Unwanted Medications In My Home?

- ◆ **Purchase only what you need.**
- ◆ **Take the medication as prescribed by your physician.**
- ◆ **Store all medications in a centralized location away from children and pets.** This may help to reduce risks and inadvertent over-purchasing of products you already have.
- ◆ **Store medications at the proper temperature and humidity,** as recommended on the label. In some cases, this may not be the bathroom medicine cabinet or above the stove, as the heat or humidity may ruin the quality of your medication.
- ◆ **Say “No”** to physician samples if you are not going to use them.

DO NOT:

- **Dispose of medications in the toilet or sink.**
 - **Place medicines in the trash.**
 - **Give or sell them to others.**

DO:

Take unwanted or expired medications to an approved pharmaceutical disposal drop-off program.

Disposal Locations in McHenry County for Unwanted Medications



All unwanted prescription and non-prescription medications and vitamins can be dropped off for safe disposal at these locations:

- ◆ **Johnsburg Police Department**
3611 Chapel Hill Road
Johnsburg, IL 60051
- ◆ **Fox River Grove Police Department**
305 Illinois Street
Fox River Grove, IL 60021

Acceptable Medications:

Residents may bring **pills** in original containers or separate bags. Other acceptable medications include **salves and liquid medicines** in original containers or in non-leaking containers. Labels on medications are not required.

Unacceptable Medications:

Sharps, needles, IV bags, or thermometers.

Additionally, medications will **NOT** be accepted from “facilities” such as nursing homes, clinics, doctor’s offices, or other businesses that distribute medications.

However, “individuals” who obtained medications for **personal use** from a clinic, doctor, or nursing home may dispose of these medications at the drop-off locations.