

Why Dispose of Medications?



photo courtesy of the MedDrop, Dane County, WI

TO REDUCE OVERDOSES Unneeded and outdated medications in a home can cause overdoses, especially among children and seniors.

TO REDUCE DIVERSION Medications are frequently stolen from medicine cabinets and the trash, often by teenagers, and used or sold illegally.

TO PROTECT THE ENVIRONMENT & HUMAN HEALTH The Solid Waste Division of the New York State Department of Conservation (NYSDEC) refers to the issue of medication disposal as an “emerging concern” stating that these medications are “likely not commonly monitored, unregulated in water, poorly studied/poorly understood, may be concerns re human health or aquatic life.” There are two hundred twenty-five million prescriptions filled each year in New York State according to the DEC, and these medications are meant to have a biological effect. Therefore, preventing their disposal to the environment is of primary importance, especially in terms of local water quality.

Pharmaceuticals and their break down products can end up in our environment through the manufacturing process, through incomplete use in the body, and from disposal of unwanted and outdated medications. Since wastewater treatment facilities don’t remove many of these chemicals from the water, it is important to stop them from entering the wastewater stream in the first place. Focusing on the disposal issue, the NYSDEC has developed a media campaign “Don’t Flush your Drugs” that includes a website (www.dontflushyourdrugs.net). It has also mandated that pharmacies display an educational poster. Several municipalities in New York State have undertaken medication return days to provide a safe alternative to flushing or tossing medications in the trash.

The Coalition for Safe Medication Disposal (CSMD) organizes collection events in Tompkins County to provide a safe and convenient disposal option for area residents. These events will also raise public awareness of the many reasons why safe disposal is so important.

The State and Federal Government now strongly discourage flushing pharmaceuticals, with a few exceptions.* They encourage participation in collection events, such as this, since incineration is the best available technology for the safe destruction of all waste pharmaceuticals.

Getting rid of medicines by putting them in the trash or flushing them down the toilet isn’t the answer.

- Wastewater treatment facilities usually are able to remove only some pharmaceutical contaminants.
- An extensive nationwide study by the US Geologic Survey has found evidence of pharmaceuticals, including antibiotics and hormonal drugs, in surface waters throughout the nation.
- According to the World Health Organization, antibiotics in water supplies are a potential concern because the most frequently used antibiotics are becoming less effective as the infections they are designed to combat become resistant. That resistance increases with heightened exposure to the drugs.
- Pharmaceuticals, including antibiotics, can be found in the drinking water supplies of at least 41 million Americans. Though the concentrations of the pharmaceuticals are small, far below typical medical doses, the U.S. Environmental Protection Agency (EPA) has acknowledged that this is a serious concern.
- Research has shown that surface water containing human hormones are a likely cause of sexual organ changes in fish.
- Throwing medications in the trash can lead to accidental swallowing by children or pets or could lead to intentional diversion for misuse. When disposed of in the trash, these chemicals can contaminate the leachate (water that comes in contact with trash) from the landfill. Pharmaceutical contaminated leachate can end up in drinking water supplies.

More research still needs to be done to determine the effect of long-term human exposure to a large number of pharmaceuticals in low concentrations. Some research suggests there are negative, synergistic effects. It is certainly a wise precaution to do our best keep medicines out of our waterways.

* A small number of powerful prescription medications include “flush” directions on their label. If a collection event is not available (the best disposal method) then these medications should be flushed rather than put in the trash. For a list of “flush” medications go to: <http://www.fda.gov/Drugs/ResourcesForYou/Consumers/BuyingUsingMedicineSafely/EnsuringSafeUseofMedicine/SafeDisposalofMedicines/ucm186187.htm>

Questions? Email or call Ed Gottlieb, Chair CSMD, egottlieb@cityofithaca.org (607) 273-8381