

A Remedy for Residential Drug Disposal

Managing unused medications is a safety as well as an environmental concern. Traditionally, we were told to flush unwanted medications down the drain or toilet rather than keeping them around so they would not be misused by the patient for the wrong symptoms or by someone else who was not prescribed the medication and who might use the drugs recreationally. Although effective in removing the medication from potentially being misused, flushing creates a new and growing problem in the environment. Antibiotics and other medications in a septic system can destroy beneficial bacteria necessary for the system to operate. Wastewater treatment plants are not designed to remove or process many compounds found in medications that end up being discharged into our surface and ground water. A study by the United States Geological Survey done in 1999 showed that in 80% of the streams sampled contained detectable levels of compounds found in common medications. National attention is growing to develop more appropriate methods of safely disposing of unwanted medications.

NOTE: Information in this fact sheet does not apply to medications generated as waste from Michigan businesses, hospitals, clinics, medical offices, etc. Those facilities should see the *Universal Waste* guidance at www.deq.state.mi.us/documents/deq-ead-tas-univwaste.pdf.

What should citizens do with unwanted medications?

Take your medications per the instructions of your doctor or pharmacist. If you do end up with unused medication:

1. Check with your pharmacy to see if they have a drug take back program. Some pharmacies are beginning to accept medications back from the public as a community service. Controlled substances (which are often prescription pain killers) can only be accepted under special collection arrangements due to federal Drug Enforcement Agency regulations. Your pharmacy can help identify controlled substances, or see the controlled substances schedules and “drugs and chemicals of concern” at www.deadiversion.usdoj.gov.

2. Find out if there is a special collection for unused and expired drugs in your area by contacting your local household hazardous waste collection or recycling coordinator. A list of local contacts is at www.michigan.gov/degreswastecontacts. Controlled substances can only be accepted under special collection arrangements due to federal regulations. Keep medications secure from misuse when storing for an upcoming collection. Commonly collected products include:

- Prescription and over-the-counter medication including cold medicines
- Medication samples
- Vitamins
- Medicated ointments and lotions
- Inhalers
- Veterinary medications



For sharps disposal, see the [The Point is...Needles Hurt!](#) brochure and the list of needle and other sharps collection programs at www.michigan.gov/deqmedwaste.

3. Dispose of unwanted medicines in the trash if a collection program is not available—

DO NOT FLUSH DRUGS DOWN SINK DRAINS OR TOILET.

Chemotherapy drugs may require special handling. Work with your healthcare provider for proper disposal options for this type of medication.

- Keep other pharmaceuticals in their original container since the labels may contain safety information, the container is chemically compatible, and the caps are typically water tight and child-proof.
- Scratch out, cover with tape, or use permanent marker to make personal information unreadable.
- To reduce the opportunity for misuse, prepare the drugs for disposal:
 - **For solid medications, such as pills or capsules:** add a small amount of water to at least partially dissolve them. Seal the container with duct or other opaque tape.
 - **For liquid medications:** add enough table salt, flour, charcoal, or nontoxic powdered spice, such as turmeric or mustard to make a pungent, unsightly mixture that discourages anyone from eating it. Seal the container with duct or other opaque tape to prevent leaks and breakage.
 - **For blister packs:** wrap the blister packages containing pills in multiple layers of duct or other opaque tape.
 - **Unused ampules, vials, and IV bags** should not be opened (other than to scratch out the patient's name). Wrap the item with duct or other opaque tape to minimize breakage, and then place in an opaque plastic container (such as an empty yogurt or margarine tub).



Double bag the contained drugs in a closable plastic bag, or put in another container with the lid taped closed, and put it in the trash. This helps prevent immediate identification that the package contains drugs and helps contain any leaks if the container breaks during the disposal process, e.g., when plastic garbage bags tear, the trash can tips over, etc. Avoid putting drugs into any material or food that might be attractive to pets or wildlife.

Interested in finding out more information about drug use and disposal issues?

- USGS Toxic Substances Hydrology Program: http://toxics.usgs.gov/highlights/pharmaceuticals_method.html
- EPA Pharmaceuticals and Personal Care Products as Pollutants: www.epa.gov/ppcp
- Washtenaw County 4 minute video [Safe Disposal of Medications](#)
- Michigan Antibiotic Resistance Reduction: www.mi-marr.org
- List of pharmaceuticals and other products that contain mercury: www.deq.state.mi.us/documents/deq-ead-p2-mercury-mercusetree.pdf

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