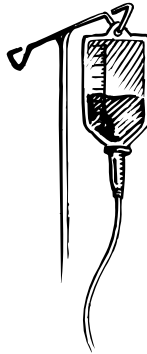


## Managing other types of pharmaceutical waste

**Sharps**, such as home health care needles can be disposed of in a sharps container, an empty coffee can, a laundry detergent bottle, an empty bleach bottle. When the container is full, tape the lid down with heavy duct or packing tape. Label the container with the words “MEDICAL WASTE” or “SHARPS CONTAINER” and let your waste hauler know you are placing the waste with your regular trash.

### Unused ampoules, vials, and IV bags

should not be opened (other than to scratch out the patient's name). If they cannot be returned to your doctor or pharmacist, wrap the container with tape to minimize breakage, then place in an opaque plastic container (such as an empty yogurt or margarine tub). Wrap the outside of the container or bag with additional duct or shipping tape to prevent leakage and further obscure the contents. Dispose of the container in the trash.



**Chemotherapy drugs may require special handling.** Work with your health-care provider on proper disposal options for this type of medication.

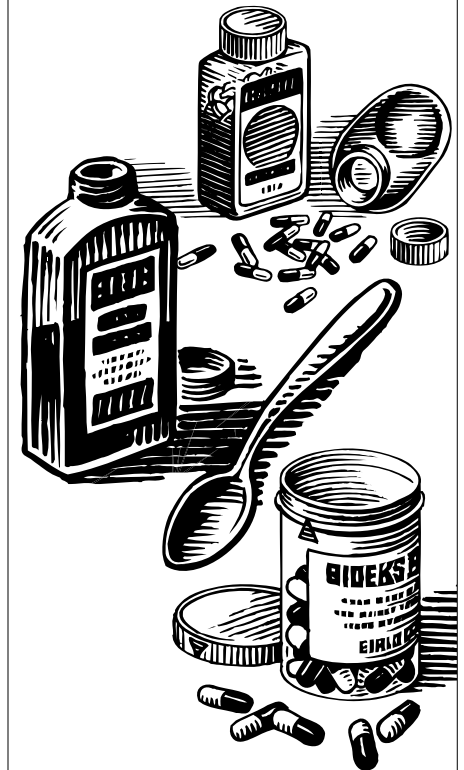
**RESOURCE RECOVERY**  
50 E. SPRAGUE RD.  
IONIA, MI 48846



Protecting  
Ionia County's  
Environment

## Emptying the Medicine Cabinet

Disposal Guidelines for  
Pharmaceuticals and  
Personal Care Products



Ionia County Resource Recovery  
50 E. Sprague Rd..  
Ionia, MI 48846  
616-527-8219

## Pharmaceuticals, improperly disposed of, can harm the environment.

Any product consumed or applied by an individual for personal health or cosmetic reasons can be defined as a pharmaceutical or personal care product. These products include prescription and over-the-counter therapeutic drugs, fragrances, cosmetics, sunscreen agents, diagnostic agents, contact lens solutions, and many others. All of these products applied externally or ingested have the potential to be excreted or washed into sewage or septic systems and discharged to the aquatic and terrestrial environments.

While flushing medicine down the toilet does prevent misuse of the substance, the practice can cause other problems. Specifically, when

medicines are flushed down a toilet, the medicines can harm the beneficial bacteria that are responsible for breaking down waste in the septic system or at a wastewater treatment plant

(WWTP). Since municipal sewage treatment plants are not engineered for pharmaceutical removal, many medicines are not captured or only partially captured during a WWTP process so they can pass through a WWTP intact. These substances are then released into a nearby lake, river or ground water with the treated wastewater.

The risks posed to aquatic organisms by continual life-long exposure and to humans by long-term consumption of minute quantities are essentially unknown. While major concerns to date have been the promotion of resistance to antibiotics and disruption of endocrine systems by steroids, effects due to the presence of many other pharmaceuticals in the environment have unknown consequences, especially considering them collectively.



**For a healthy environment and clean water, don't flush pharmaceuticals**

## Waste Prevention

- Only purchase what you need. Why waste money on pharmaceuticals to just sit on the shelf and expire over time?
- Say "No" to samples if you are not going to use them. You will only need to dispose of them later.
- Centralize all pharmaceuticals in one location. This may help to limit over purchasing of products you already have.
- Read the label. Some products contain mercury-added preservatives; if you see it on the label, find an alternative product.


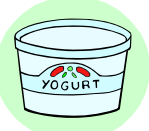


## Necessary Disposal

Not all pharmaceutical waste can be prevented. Items that should no longer be used may include:

- Expired medications
- Any medications for someone who has passed away
- Old, unsealed syrups, eye drops, creams, ointments, etc.
- Loose tablets and capsules
- Items that should have been refrigerated and were not
- Used needles/syringes

## Proper Disposal

1. **Check with your doctor or pharmacy** for disposal options for prescribed medications and sharps. If no option exists, your unwanted medications may be disposed of in your trash. Follow these precautions to prevent accidental or intentional ingestion:
2. **Keep the medication in its original container.** The labels may contain safety information and the caps are typically childproof. Leaving the content information clearly visible, scratch the patient's name out or cover it over with permanent marker.
3. **Modify the contents to discourage consumption.**
  - Solid medications: add a small amount of *Bitter Apple Spray* (found at pet supply stores) to pills or capsules to dissolve them and make them un ingestible.
  - Liquid medications: add enough table salt, flour, charcoal, nontoxic powdered spice such as turmeric or mustard, or scoopable kitty litter to make a pungent, unsightly mixture that discourages anyone from eating it.
4. **Seal and conceal.** Tape the medication container lid shut with packing or duct tape and put it inside a non-transparent bag or container such as an empty yogurt or margarine tub to ensure that the contents cannot be seen.

Blister packs: wrap packages containing pills in multiple layers of opaque tape like duct tape.
5. **Discard the container in your garbage can.** Do not place the container in a recycling bin. Do not conceal medicines in food products because they could be inadvertently consumed by wildlife scavengers.