

Pharmaceutical Waste:

Disposing of unwanted medications

What's the problem?

Expired or unwanted prescription or over-the-counter medications from households have traditionally been disposed of by flushing them down



the toilet or a drain. Although this method of disposal prevents immediate accidental ingestion, it can cause pollution in wastewater, which has been demonstrated to cause adverse effects to fish and other aquatic wildlife. When the water is eventually reused, it can also cause unintentional human exposure to chemicals in medications.



Disposing of medications at home

Your unwanted medications may be disposed of in your trash. Follow these precautions to prevent accidental or intentional ingestion.

1. 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.

2. Modify the medications to discourage consumption.



- ▶ **For solid medications, such as pills or capsules:** add a small amount of water to at least partially dissolve them.
- ▶ **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.
- ▶ **For blister packs:** wrap the blister packages containing pills in multiple layers of duct or other opaque tape.



- 3. Seal and conceal.** Tape the medication container lid shut with packing or duct tape, place it inside a non-transparent bag or container such as an empty yogurt or margarine tub to ensure that the contents cannot be seen.

Do not conceal medicines in food products because they could be inadvertently consumed by wildlife scavengers.



- 4.** Discard the container in your garbage can—do not place in the recycling bin.

Managing other types of pharmaceutical waste

Unused ampoules, vials, and IV bags should not be opened (other than to scratch out the patient's name). 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 healthcare provider on proper disposal options for this type of medication.

Other resources

- U.S. Geological Survey research on the presence of pharmaceuticals in the environment: toxics.usgs.gov/regional/emc
- U.S. Environmental Protection Agency information on the potential environmental impacts of pharmaceuticals: www.epa.gov/ppcp

Changes ahead

As a national dialogue on pharmaceutical waste continues, additional options for management of expired or unwanted medications may become available. Check www.pca.state.mn.us/hhw for updates.

For more information on household hazardous wastes and collection programs, contact your county's solid waste office or www.pca.state.mn.us/hhw to find local program contact information.



Minnesota Pollution Control Agency

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