PROPER DISPOSAL OF

UNWANTED MEDICINE

HOW TO PROTECT
YOUR **HOME**
AND **ENVIRONMENT**

4 TIPS

to reduce the amount of unwanted medicine in your home

1

BUY ONLY WHAT YOU NEED

Take all medication as prescribed by your physician, wait to refill prescriptions until you need them, and avoid pharmacy auto-refill programs.

2

STORE MEDICINE IN ONE PLACE

Centralize all medicine in one secure location to prevent over-purchasing products you already have.

3

STORE MEDICINE PROPERLY

In order to preserve its quality, store medicine as recommended on the label. Avoid placing multiple, unlabeled medications in one container.

4

SAY NO TO PHYSICIAN SAMPLES

Say no to physician samples if you are not going to use them, and make sure your prescriber provides directions to ensure the medicine is taken correctly.

WHAT'S THE ISSUE?

Safe methods of disposal are needed for unwanted medicine.

Improper disposal of prescription and over-the-counter medicine presents both a public safety and environmental hazard and wastes millions of healthcare dollars annually.[1]

Possible dangers include:

1. **Poisonings.** If thrown in the trash, young children and pets may find and accidentally ingest the medicine.

2. **Improper dosing.** Using expired medicine is a risk because medicines may change over time. Older, expired medicine may become more or less potent—as medicine changes, it may become toxic.

3. **Illegal use or theft.** Unwanted medicines may be abused or illegally possessed. Patient information on prescription bottles should be kept private to avoid identity theft.

4. **Water Contamination.** Research has demonstrated reproductive[2] and developmental[3] issues in fish and other wildlife exposed to pharmaceutical compounds, and low levels of some pharmaceuticals have been found in drinking water.

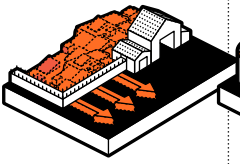
How does

UNWANTED MEDICINE

enter the environment?

DISCARDING IN TRASH

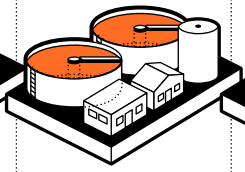
Landfill



Chemicals can leach from a landfill and contaminate the drainage water.

FLUSHING DOWN TOILET OR DRAIN

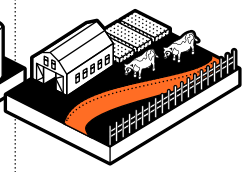
Wastewater Treatment Plant (WWTP)



WWTPs are not designed to remove drugs, and chemicals can be released into waterways and drinking water sources.

RUNOFF

Farming and Aquaculture



When wastewater or biosolids are land-applied, runoff may contaminate waterways.

THESE SUBSTANCES CAN CAUSE HARM BECAUSE AQUATIC ORGANISMS ARE CONTINUOUSLY EXPOSED TO LOW LEVELS OF THESE DRUGS

THE BASICS
of proper medicine disposal

DO

- **Return unwanted medicine to a take-back drop box or collection event.** Medicine disposal envelopes are also available for purchase at most pharmacies.
- **Remove or black out information** on the container while leaving the medicine name and dose visible.
- **Ask your physician, pharmacist, or local law enforcement** for advice on how to dispose of your unwanted or expired medicine.

DON'T

- **Flush unwanted meds** down the sink or drain.
- **Give or sell to others**.

If you can't make it to a take-back:

1. **Add kitty litter**, used coffee grounds, or other unpalatable substance to the medicine.
2. **Seal the mixture** in a leak-proof container, such as a plastic bag or coffee can.
3. **Throw the container in your household trash** as close to pick-up day as possible.

FOR MORE INFORMATION VISIT www.unwantedmeds.org

to find your local take-back program and download resources, including information about how to properly dispose of unwanted medicine and how to start a medicine take-back program in your community.

For questions or more information, please contact Sarah Zack, Illinois-Indiana Sea Grant pollution prevention specialist, at szack@illinois.edu or 217-300-4076.

Sea Grant ILLINOIS-INDIANA

UNIVERSITY OF ILLINOIS EXTENSION

Illinois-Indiana Sea Grant, based at Purdue University and the University of Illinois at Urbana-Champaign, provides statewide research, outreach, and education addressing challenges facing our water resources and coastal residents. Illinois-Indiana Sea Grant is supported by the National Oceanic and Atmospheric Administration's National Sea Grant Office, U.S. Department of Commerce, and by Purdue University and University of Illinois at Urbana-Champaign through state funding.

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.

2. Kidd, K.A., P. J. Blanchfield, K. H. Mills, V. P. Palace, R. E. Evans, J. M. Lazorchak, and R.W. Flick. 2007. "Collapse of fish population after exposure to a synthetic estrogen." Proceedings of the National Academy of Sciences. 104(21): 8897-8901.

3. Foster, H.R., G.A. Burton, N. Basu, and E.E. Werner. 2010. "Chronic exposure to fluoxetine (Prozac) causes developmental delays in *Rana pipiens* larvae." Environmental Toxicology & Chemistry. 29(12): 2845-2850.

IISG19-HCE-BRC-029