



Management of Household Pharmaceutical Waste, Sharps and Thermometers

The proper disposal of pharmaceuticals and personal care products has become a growing concern across the nation. Pharmaceutical and personal care products can include prescription and over-the-counter medicines, fragrances, cosmetics, lotions, dietary aids, sunscreens and any product consumed by individuals for personal health or cosmetic reasons. These medications and products enter the environment when medication residues pass out of the body into sewer lines or the items are flushed down the drain. Domestic sewage is considered a major source of pharmaceuticals in the environment.

While flushing excess medications down the toilet or pouring them down the drain prevents misuse of the substance, this can cause other environmental problems. The medicines can harm the beneficial bacteria that are responsible for breaking down waste in the septic system or wastewater treatment plant. Municipal wastewater treatment facilities are not engineered for pharmaceutical removal. Many of the pharmaceutical medicines are not captured or are only partially captured during the treatment process before they and the treated wastewater is released into nearby lakes, rivers or groundwater.

Scientists are concerned about the effect pharmaceuticals are having on the environment and wildlife. Studies over the years have found trace amounts of pharmaceuticals and personal care products in drinking water supplies. Technological advances are allowing us to detect more substances at lower levels than ever before, and the issue of pharmaceuticals and personal care products in drinking water is a legitimate concern. There is currently very little data available on the occurrence and health effects of pharmaceuticals in drinking water, but it warrants further study and analysis.

Government agencies, universities and other organizations are continuing to investigate the effects of long-term exposure to pharmaceutical and personal care products on wildlife and the environment. Some medications and personal care products contain hazardous chemicals or even heavy metals such as mercury, which is used as a preservative.

Remember, even routine medicines such as those that grow hair can have a serious risk of causing birth defects for woman who are pregnant or become pregnant. Also, exposing individuals on heart medications to interfering medications can put them at risk. Adverse effects can occur if individuals are unintentionally exposed to certain prescriptions, so it is important to properly manage pharmaceuticals and personal care products.

Recommended Management Methods

The proper use and disposal of household pharmaceuticals and personal care products is simple.

For use:

- Take prescription medicines as directed.
- Unless you are having an adverse reaction or are instructed otherwise by your doctor, use all medicine as directed until it is gone.
- Talk to your doctor if you have questions about your prescription or need a new medicine.
- Only purchase and use essential pharmaceuticals and personal care products.

Recommended Disposal Methods for Prescriptions and Over-the-Counter Medications

Properly disposing of unwanted and expired prescriptions and over-the-counter medications in the trash promotes a healthy environment and prevents accidental poisoning and intentional abuse. Follow these steps for proper disposal of medications.

Liquid Medications

1. Remove from the original container and put the contents into a hard plastic container such as a laundry detergent bottle. Remember to mark out personal information on the prescription bottles before placing in the trash.
2. Add a thickening material such as cat litter, flour, salt, charcoal or coffee grounds. Nontoxic powdered spice such as turmeric or mustard may be added to discourage wildlife or young children from trying to eat the resulting material.
3. Seal the container and place it in the trash just prior to pick-up.

Solid Medications

1. Remove from the original container and put the contents into a hard plastic container such as a laundry detergent bottle. Remember to mark out personal information on the prescription bottles before placing in the trash.
2. Add a small amount of water to dissolve the medicine.
3. Add a thickening material such as cat litter, flour, salt, charcoal or coffee grounds. Nontoxic powdered spice such as turmeric or mustard may be added to discourage wildlife or young children from trying to eat the resulting material.
4. Seal the container and place it in the trash just prior to pick-up.

Blister Packages, such as pills in foil wrapped containers, and Patches

1. Keep these items in their original packaging. Remember to mark out personal information on the prescription bottles before placing in the trash.
2. Wrap the pack with a thick tape such as duct tape.
3. Place the pack into a hard plastic container such as a laundry detergent bottle.
4. Seal the container and place it in the trash just prior to pick-up.

Other Household Concerns

The following information is additional health care-related products of concern for households.

Sharps

1. Place needles, syringes, lancets and other sharp objects in a hard plastic container with a screw-on or tightly secured lid. Many containers found in the household, such as a laundry detergent bottle or metal coffee container will be sufficient. You may also purchase containers specifically designed for the disposal of medical waste.
2. Do not put sharp objects in any container you plan to recycle. Do not use glass or clear plastic containers.
3. For optional chemical treatment of sharps, the Department of Health and Senior Services recommends mixing one part common household chlorine bleach with nine parts water. This solution should be poured into the container of sharps and allowed to remain for approximately 30 minutes. The solution must then be carefully poured off so the free liquid does not remain in the container. The solution may be disposed of in the sanitary sewer system.
4. Reinforce the lid with thick tape such as duct tape and place in the trash just prior to pick-up.

For additional information on the disposal of sharps, contact the Department of Natural Resources' Solid Waste Management Program at 800-361-4827 or 573-751-5401.

Mercury Thermometers

The greatest risk of exposure from elemental mercury in products such as fever thermometers is improper handling and disposal of spilled mercury. Mercury volatilizes quickly and is easily inhaled. Improper clean up with a vacuum, paintbrush or household cleaner increases exposure. Indoor air may be contaminated by mercury vapor from a broken fever thermometer, or other products that have gone unnoticed, or improperly cleaned up. At a high level, mercury can cause damage to the central nervous system, tremors, inability to walk, convulsions and even death.

The department encourages citizens to use household hazardous waste facilities as the first option to properly dispose of unwanted devices that contain mercury. For a listing of permanent household hazardous waste facilities in Missouri, visit the department's Web site at www.dnr.mo.gov/env/hwp/permanent-hazwaste-collection-facs.htm. It is legal, however, for households to dispose of those devices in their trash destined for a sanitary landfill.

Double-bagging is recommended to help limit human exposure during handling.

For additional information on disposal of mercury thermometers, contact the Department of Natural Resources' Hazardous Waste Program at 800-361-4827 or 573-751-3176.

For More Information

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Solid Waste Management Program
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800-361-4827 or 573-751-5401 office
573-526-3902 fax
www.dnr.mo.gov/env/swmp/index.htm

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