Everyone can help

It was once common practice to flush these medications down the toilet. Your doctor or pharmacist may have directed you to do this. We now know that these substances are bad for our environment - the ground, water, and air around us. One very important thing everyone can begin with, however, is to take medications as directed and finish the prescription when directed to do so by your doctor.

While these compounds may be detected at very low levels in source waters, people regularly consume and use these products a higher concentrations through medicines and other sources. While research has not shown human health implications from consuming low levels that may be found in the environment, we should be reminded of how precious our source waters are and the need to protect them from harmful substances. As a society we should encourage policies that protect our waters from contaminants of all kinds.

THE CITY OF MADISON

P.O. BOX 308, MADISON, SD 57042

brought to you by:

The City of Madison
Water and Wastewater Department.

PO Box 308
401 S. Highland Ave.
Madison, SD 57042-0308

email water@cityofmadisonsd.com

On the web
www.cityofmadisonsd.com

Pharmaceuticals and Personal Care Products in our Drinking Water and Environment

An informational guide.

Properly dispose of pharmaceuticals and personal care products!

Outdated or left-over prescription drugs and personal care products should be disposed of properly.

Water professionals have the technology today to detect more substances– at lower levels– than ever before. As analytical methods improve, pharmaceutical compounds and personal care products are being found at very low levels in many of our nations lakes, rivers, and streams.

The fact that a substance is detected in water or the environment does not mean that it is harmful to humans. What is of concern is that it may interfere with reproduction and growth in aquatic organisms, and of increasing bacterial resistance to antibiotics. Research to date has not demonstrated an impact on human health from pharmaceuticals and endocrine disrupting compounds in drinking water (both tap water and bottled water).

What are these medications?

Medications (also called pharmaceuticals) include prescription drugs such as hormones (birth control pills, estrogen replacement drugs, etc.) , antidepressants, and antibiotics; over the counter medicines such as pain relievers (aspirin, ibuprofen, etc.), cold and flu remedies, antiseptics (germ killing liquids); and veterinary medications.

These medications get into the environment.

How do these medications get into the environment? Studies have found very small amounts of medications in surface water bodies (streams, rivers, lakes) across the country. Medications enter these water bodies from various sources that include animal feedlots, land application of organic materials and, also, wastewater treatment plants that treat residential, commercial, and/or industrial wastewater.

Finish taking all prescriptions as directed by your doctor.

There are two ways that medications enter the sewer system and wind up at a wastewater treatment plant: (1) excretion by the human body in urine and feces and (2) disposal of unused or expired medications down the toilet or drain. Wastewater treatment plants are designed to remove conventional pollutants such as solids and biodegradable materials; they are not designed to remove man-made pollutants such as medications. Therefore, one way to reduce the level of medications in surface water bodies is to reduce the amount of medications entering the wastewater treatment plant. This can be done by educating residents and health care professionals that <u>unused or expired medications should not be disposed of down the toilet or drain.</u>

Options to dispose of the medications.

- Take them to a hazardous waste collection center.
- Put them in a sturdy and secure sealed container and dispose of them in the trash.

Use the original container and "treat" by adding water then dirt, ashes, cat litter, or salt. Then wrap in several layers of duct tape or masking tape. Hide these medications with an additional outer layer of paper or plastic bag to conceal in trash. Modern landfills are designed not to leak contaminants to the environment.

More information is available at the following website: http://www.epa.gov/ppcp/

What is being done?

The scientific community continues to monitor and study this problem and its' impact on the environment and the human population. The EPA has recently developed three new methods to detect and quantify pharmaceuticals in wastewater, and has analyzed 287 pharmaceuticals for possible inclusion on a draft list of candidates for regulation under the Safe Drinking Water Act.