

**Sent:** Wednesday, September 07, 2005 6:05 PM  
**Subject:** TIPS: DISPOSING OF PHARMACEUTICALS & PERSONAL CARE PRODUCTS

*Dear Aquathin Dealer OnLine, Splash NewsBulletin and Allergic Reaction NewsBulletin Members;*

*You will recall the numerous articles I have sent you in the past discussing the presence of certain drugs found in tap water and source water...and you may also recall my commentary concerning the probable presence of specific drugs and chemicals that were not mentioned in the articles (again all readily removed by your Aquathin Patented RODI Process).*

*Below you will read a terrific "Tips" from the New Hampshire Department of Environmental Services how each of us may practice preventive measures to limit the entrance of drugs into the environment. There is no way to date, to prevent the entrance of drugs that we have consumed, but not completely absorbed, into the environment from human waste...and the article re-edifies my earlier commentaries that waste water treatment plants are not built to handle these contaminates...nor are these drugs yet EPA regulated.*

*Because everyone lives downstream from everyone else, I respectfully recommend that you reprint these Tips and provide them to your local community newspapers and civic organizations...and of course, personally put them into practice. There are a couple on the list that I would not have thought of!*

*I LOVE MY AQUATHIN !!!*

*Warmest regards to all...as well, your comments are always welcome and very much appreciated.*

*FOR THE BEST TASTE IN LIFE &*

***25 Years Pure Excellence***

*Think Aquathin...AquathinK !!*

*( visit the allnew [www.aquathin.com](http://www.aquathin.com) )*

*"Alfie"*

*Alfred J. Lipshultz, President*

***P.S. "Splash NewsBulletins", "Forum Q & A", "Allergic Reaction", Biz Bank, Tech Bank and Quote Bank... ARE ALL FREE services to all Authorized Aquathin Dealers and their clients to keep you abreast of technology updates and industry news.***

---

***FROM ENVIRONMENTAL PROTECTION***

***Management and Problem Solving for Environmental Professionals***

***Tips: Disposing Of Pharmaceuticals, Personal Care Products***

Tips courtesy of the New Hampshire Department of Environmental Services (DES) (<http://www.des.nh.gov>).

*The proper disposal of pharmaceuticals and personal care products is an emerging issue in the environmental arena. When aquatic and amphibian species are exposed to small amounts of pharmaceutical and personal care products, it can result in decreased reproduction, delayed development and even additional appendages in some species. In 2002, 80 percent of streams sampled (139 rivers in 30 states) by the U.S. Geological Survey showed evidence of drugs, hormones, steroids and personal care products such as soaps and perfumes.*

*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 pathogenic resistance to antibiotics and disruption of endocrine systems by natural and synthetic sex steroids, effects due to the presence of many other pharmaceuticals and health care products in the environment have unknown consequences, especially considering them collectively.*

*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, nutraceuticals, biopharmaceuticals, and many others. All of these products applied externally or ingested have the potential to be excreted or washed into sewage 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.*

*Some medications and personal care products contain hazardous chemicals or even heavy metals, such as mercury which is used as a preservative. In New Hampshire, there has been increasing attention on mercury as a serious pollutant due to its toxic, persistent and bioaccumulative properties.*

*With the absence of guidance, one must use personal judgment to decide proper disposal. Here are some options to help you choose how to dispose of pharmaceutical and personal care products.*

*1. Contact your local household hazardous waste coordinator prior to a collection event to determine if your municipality will accept the waste. Most collection events will accept mercury-added or other personal care products, but not pharmaceutical waste.*

*2. Dispose of the waste in household trash.*

*a. Keep products in their original containers. Pharmaceutical container caps are typically watertight and child proof.*

*b. Add a small amount of water to a solid drug or some absorbent material such as kitty litter, sawdust or flour, to liquid drugs before recapping to discourage any unintended use of the drug.*

*c. Double seal the container in another container or heavy bag to prevent easy identification of the drug container or to prevent a glass container from breaking.*

*To reduce the amount of waste pharmaceuticals and personal care products:*

*1. Only purchase what you need. Why waste money on pharmaceuticals to just sit on the shelf and expire over time?*

2. Say "No" to samples if you are not going to use them. You will only need to dispose of them later.
3. Stop junk mail. Take your name off mailing lists so you don't receive free sample products, such as pain relievers, lotions, and shampoos. If you don't use them, then you will need to dispose of them later. Visit <http://www.des.nh.gov/JunkMail> to find out how.
4. Centralize all pharmaceuticals in one location. This may help to limit over purchasing of products you already have.
5. Read the label. Some products contain mercury-added preservatives; if you see it on the label, find an alternative product.

### **Intravenous Bags**

While households can legally dispose of hazardous waste in their trash, use personal judgment to decide on the proper disposal of intravenous bags that contain chemotherapy agents. To assure these wastes are not discharged to the ground, surface water, groundwater, or air:

1. Remove sharps and dispose of them with other household generated sharps.
2. If the bag is empty, discard it in the trash or recycle it.
3. If the bag contains a fluid, return the IV bag to a home care provider, pharmacy or other medical provider. They can dispose of the waste safely and properly.
4. It is not recommended that chemotherapy agents be disposed of in trash or poured down the drain.

### **Household Generated Sharps**

Household generated sharps may be disposed of in the solid waste, provided:

1. Sharps are enclosed inside rigid, puncture-resistant containers.
2. Containers encasing sharps are sealed and labeled "not for recycling."

Certain containers found in the household, particularly plastic bleach and laundry detergent containers are satisfactory to ensure the safe disposal of sharps. Also, containers can be purchased that are specifically designed for the disposal of sharps. Before placing a container of sharps in the trash, reinforce the lid with heavy-duty tape and place the container in a securely fastened plastic bag.

### **Pollution Prevention at Healthcare Facilities**

Since 1998, the Department of Environmental Services' New Hampshire Pollution Prevention Program has been promoting pollution prevention opportunities at healthcare facilities. This on-going project involves providing on-site assistance at participating facilities, setting up an infrastructure to promote continuous environmental improvement, and providing outreach and training activities to New Hampshire healthcare facilities.

For further information on Pollution Prevention at Healthcare Facilities, contact Sara Johnson, DES, at (800) 273-9469 or [sjohnson@des.state.nh.us](mailto:sjohnson@des.state.nh.us).

Also see the World Health Organization's Guidelines for Safe Disposal of Unwanted Pharmaceuticals in and after Emergencies at <http://www.who.int/medicines/library/par/who-edm-par-1999-2/who-edm-par-99-2.shtml> and EPA's Web pages on Pharmaceuticals, Personal Care Products at <http://www.epa.gov/esd/chemistry/pharma/index.htm>