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PPCPs: Keep Them out of Our Seas!

Why Pharmaceuticals and Personal Care Products are a problem for our environment and what you can do to help

Pharmaceuticals and Personal Care Products, or PPCPs, include a huge list of items we regularly use, including prescription drugs, vitamins, fragrances, cosmetics, hair care products, and veterinary drugs. When these substances go down our drains and into our sewer and septic systems, most of them are not effectively removed, and increasingly many of the chemicals in PPCPs are found at detectable levels in our streams, rivers, and oceans.

Why is this a problem? PPCP chemicals that are being measured in our waterways include antidepressants, estrogens, narcotics, antibiotics, tranquilizers, and steroids. Some of these compounds are already known to have effects on aquatic life. Some examples include:

- Synthetic estrogen in oral contraceptives can lead to the feminization of male fish
- Antidepressants can disrupt spawning behavior in shellfish
- Certain cardiac drugs can prevent aquatic organisms from expelling contaminants from their systems, increasing the toxic effects of the PPCPs they are exposed to.

For many of the substances in PPCPs, we don't yet understand the nature or level of their effects; but due to their reactive nature, continual presence in the environment, and unknown effects on both humans and aquatic ecosystems, concern is rising among researchers and health agencies.

So what can you do to help reduce PPCPs in our aquatic environments? Here are some ways to get started:

DON'T: flush your medications down the drain, unless you are specifically directed to do so by your doctor or the drug label.

DO: Dispose of your medication properly. Unused and expired prescription drugs can be dropped off for free at the Bainbridge Island police station, 625 Winslow Way. Ask your vet if they have a take-back program for your dog or cat's unused medicines. If you have to throw drugs away, remove the personalized information, and throw it away in a sealed container in the trash or mix it with an undesirable substance, like kitty litter or coffee grounds, before disposal in the trash.

DO: Read the labels on cleaners, fragrances, cosmetics, and shampoos, and find alternatives for cleaning and personal care with fewer toxic chemicals whenever possible.

Additional Resources:

www.takebackyourmeds.org WA state organization supporting proper drug disposal
<http://www.epa.gov/ppcp/> EPA's PPCP information page
<http://toxics.usgs.gov/regional/emc/> US Geological Survey research on PPCPs