

Pharmaceuticals in Stormwater

What are hormone-impacting pharmaceuticals and how do they get into stormwater?

Hormone-impacting pharmaceuticals are drugs that disrupt natural biological processes within an organism's body when ingested. While many of these pharmaceuticals are used for good, they can cause harm when introduced into the natural environment. The most common, and really only way, that these disruptors enter waterways is through improper disposal of drugs. While the concentrations of hormone-impacting pharmaceuticals in stormwater are generally low, it is unknown what chronic exposure to small concentrations of several pollutants can cause. In regards to stormwater, the main concern is with these pharmaceuticals is damage to aquatic ecosystems. Because most stormwater is discharged into streams and rivers, hormone-impacting pharmaceuticals can potentially be entering those environments. Hormone-impacting pharmaceutical pollution is believed to have caused an increase in intersex fish in certain areas, where populations of fish exhibit both male and female sex characteristics. However, much is still unknown. More research needs to be done in order to determine possible health effects for humans and aquatic life.

What can you do?

- **DON'T FLUSH.** Properly dispose of drugs by going to drug take-back programs. Do NOT flush them down the toilet or throw them away. Check the FDA website for local programs near you (linked below).
- **RESEARCH.** Read the labels on your prescription medication to check for special disposal instructions. Go through your medicine cabinet and find old medication that needs to be disposed of. Learn more about the possible effects of hormone-impacting pharmaceuticals through your healthcare provider or trustworthy organizations such as the FDA, DEA, and EPA.
- **EDUCATE OTHERS.** Tell others about proper medicine disposal and why they should not flush or throw away medication. Invite friends and family to a local drug take-back program to encourage responsible discarding of drugs.

Resources for Responsible Drug Disposal:

<https://takebackday.dea.gov>

<https://guideinc.org/2020/10/02/participate-in-national-prescription-drug-take-back-day/>

<https://www.fda.gov/drugs/disposal-unused-medicines-what-you-should-know/drug-disposal-drug-take-back-locations>

Citations

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