

Pharmaceuticals in our WATER CYCLE

The U.S. Environmental Protection Agency does not regulate them in our water, instead is reviewing them as an emerging concern. How do they get in the water?

At each stop along the way, trace amounts enter our water:



Last year the US pharmaceutical industry totaled \$328 billion – approximately 28% of the world total.

Where do they all go?



FACT: Manufacturing waste treatment – Pharma companies must follow a law that was enacted in 1948 and only updated in 1972. It is horribly out of date and doesn't include the chemicals and drugs being manufactured today.

PRODUCTION



DISTRIBUTION

Sold to us as both over-the-counter and as prescription drugs

In some states can return unused drugs through safe-disposal and mail-back programs.



PROPER DISPOSAL



FACT: According to CNN in 2011 the average American filled **12 prescriptions.** (CNN)

Customers throw away or flush drugs. These, then, enter the local water supply.

IMPROPER DISPOSAL

EXCRETION

Only some of the drugs get absorbed. Unused remnants pass through the liver and kidneys and are excreted.



FACT: It is estimated that approximately **75%** unused drugs are simply thrown out or flushed.



SEWAGE TREATMENT

Wastewater is sent to treatment plants to remove only regulated toxins – not pharma. Solid waste is used as fertilizer. Treated waste water reenters the water cycle.



FACT: A study from the EPA, found that an antibiotic that was going down the drains at a Pfizer, Inc. factory in Kalamazoo, Mich. was still detectable after the water had been treated.



FARMING

Livestock and Poultry: Meat with antibiotics and growth hormones are consumed and excreted. Runoff from manure-fertilized crops and spills from manure-storage lagoons contribute to pharma in the water cycle.

PUBLIC WATER TREATMENT

The EPA only mandates water districts to remove only 91 regulated contaminants ignoring a host of unregulated contaminants like MTBE, perchlorate, chromium-6 etc and of course pharma.



FACT: 40% of public water districts are failing (NY Times)



FACT: 40% Fish in rivers near Dallas, Chicago, Philadelphia and other cities were found to have measurable levels of drugs used to treat depression, high cholesterol, bipolar disorder, high blood pressure and other ailments. In the Potomac River near Washington, D.C., about 80 percent of the male bass have eggs in their testes or other reproductive problems.



Drinking Water: Pharmaceutical chemicals and hormones (56 in total) have been detected in the drinking water of over 41 million Americans, and not all water systems have been tested.



BIG FACTS ABOUT BIG PHARMA



\$808B in 2011
Americans pay more for prescription meds than anyone else in the world **28% of the world market**



The combined wealth of the top 5 pharmaceutical companies **outweigh GNP of sub-Saharan Africa**



Pharmaceutical companies spend more on marketing than research: **Almost twice as much!**



The price of drugs is increasing **faster than anything else a patient pays for.**



Big Pharma spends more on lobbying politicians and regulatory bodies **than any other industry.**



Brand name meds often have a **1000% mark up!**



Contaminant-free.
Energized.
Alkaline.
Antioxidant.
Delicious.

AlkaViva's UltraWater™ technology removes pharma and other contaminants from your source water. Leaving the cleanest, healthiest water you can find anywhere for just pennies a gallon.

