

Prescription drugs found in drinking water across U.S.

An investigation by the Associated Press has found a wide range of pharmaceuticals in the drinking water supplies in 24 major metropolitan areas. Tests conducted by AP detected drugs such as antibiotics, anti-convulsants, mood stabilizers, and sex hormones in the drinking water supplied to 41 million Americans.

The concentrations of the pharmaceuticals are far below the levels of a medical dose. Because the amounts are small—measured in quantities of parts per billion or trillion—water utility officials believe the water is safe.

Some scientists are not so sure, however, mainly because the drugs can appear in combinations whose effects are unknown. In addition, the drugs are consumed over a long period of time and may build up in the system.

"There is genuine concern that these compounds, in the small concentrations that they're at, could be causing impacts to human health or to aquatic organisms," says Mary Buzby, director of environmental technology for pharmaceutical manufacturer Merck & Co. Inc.

The U.S. Environmental Protection Agency (EPA) shares the concern, and it is developing methods to test for the presence of pharmaceuticals. "We recognize it is a growing concern and we're taking it very seriously," said Benjamin H. Grumbles, assistant administrator for water at the EPA. "We realize that we have a limited amount of data on the concentrations. We're going to be able to learn a lot more."

The vast majority of pharmaceuticals come from waste-water that has been reclaimed for drinking purposes. People take medication, but their bodies do not absorb all of it. The remaining compounds pass through their systems and is voided into toilets. The waste-water is treated then released into rivers, reservoirs, or lakes. The water is treated again before being piped to consumers. However, no sewage treatment systems have been designed specifically to remove pharmaceuticals. In addition, some pharmaceuticals, including some tranquilizers and anti-epileptic medications, resist wastewater treatment and drinking water purification.

"People think that if they take a medication, their body absorbs it and it disappears, but of course that's not the case," said Christian Daughton, an EPA scientist who was among the first to draw attention to the issue