

WATER SAFETY

Too many drugs flushed

Ottawa launches disposal study

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Health Canada is worried that many of the drugs we take - ranging from birth control pills to antibiotics end up in the drinking water supply and could pose a risk to others.

The department announced Tuesday the launch of a major research initiative to determine the extent of the problem and to draft new regulations to minimize the risks.

"When you start looking at what the science is telling us now and what we're now, finding in our water supply we have to be concerned that we are finding stuff in our water that was never supposed to be there," said Charles Ethier, director general of the

department's product safety program.

Ethier said very little is known about the problem. For years, regulators approved drugs on the basis they were safe for the patients who would receive them unaware the substances may also be consumed through drinking water by others such as children and pregnant women.

"It's an emerging area, where we have, obviously, some growing concerns," he said.

"When you start looking at the concentrations and the amounts that are being dumped into the environment and the chronic exposure to this ... over time, you have to start to be a little bit concerned about it. And that's what the research will tell us."

Research in Europe has found that as many as 60 different drugs are in the water supply at very low concentrations.

In Canada, federal officials at the National Water Research Institute in Burlington, Ont., have detected low levels of hormones from birth-control pills.

Scientists don't know the safety risks, but there are fears that exposure to the

hormones could affect the reproductive systems of those who drink the water.

Similarly, antibiotics have been found in Canadian drinking water, leading some researchers to suspect this may be partly why humans are developing a resistance to antibiotics.

The products are ending up in drinking water from a variety of sources, including waste disposal from industry and health-care facilities.

Consumers are also contributing to the problem about 15 per cent of all prescription drugs go unused by the patient. They often sit in medicine cabinets for months and are then flushed down the toilet or thrown into the garbage, where they are taken to a landfill site and wind up in ground water..

As well, even the drugs ingested by someone end up in the water system.

About 80 per cent of the drug taken by someone is excreted out of the body either unchanged or broken down into metabolites, which may be even more dangerous than the drug itself. The drug or its metabolites usually is not affected by wastewater treatment methods.