Environmentalists agree that the trace amounts of commonly used medications found in the water supply pose no immediate health threat. Scientists, however, say the health effects of long-term exposure are largely unknown. Thus, there are good reasons to exercise caution when disposing leftover medications.

**What is the evidence that tap water contains traces of medications?**

Waste water is typically treated through sewage filtering to remove contaminants. Unfortunately, most treatment systems cannot filter out trace amounts of commonly used medications, and pharmaceutical products end up in the drinking water supply. Screening of water supplies in major U.S. cities has found trace amounts of anti-depressants, tranquilizers, antibiotics, sex hormones, anti-seizure and anti-inflammatory medications, and others. These contaminants can affect aquatic life in rivers and streams. There are even reports of male fish being feminized, presumably due to exposure to sex hormones.

**How do these trace levels end up in our drinking water?**

There are three sources. First, leftover medications enter waste water directly by being flushed down the toilet or indirectly via trash from dump sites. Second, when we take a medication, the body does not absorb all of the medication. Unabsorbed medications, as well as medication breakdown products, are excreted into the toilet and reach the sewage system. Third, industrial plants that manufacture medications also may contaminate our water systems, although their release of chemical waste materials has been more tightly controlled in recent years.

**Can anything be done to reduce this contamination of our water supply?**

Most people know that one should not flush medications down the toilet or dispose of them in the household trash, but how many follow the recommendation to return unused medications to the pharmacy? Special plastic bags are available at no cost, and the pharmacies send medications to
special facilities for destruction in high-temperature ovens.

Dealing with excreted products that enter the sewage system requires alternate solutions, such as improved pre-treatment of waste and ground water before it flows into the drinking water reservoirs.

We recommend removing all leftover medications from your medicine cabinet and bringing them to a pharmacy that will dispose of them in an environmentally safe way. This should be done on a regular basis.

**Key messages**

- ✓ Trace amounts of commonly used medications have been detected in our drinking water.
- ✓ These do not represent an immediate health threat.
- ✓ The effect of long-term exposure is not known.
- ✓ Leftover medications should be returned to a pharmacy, not flushed down the toilet or thrown away with your trash.