

Science

Drugs Contaminate Drinking Water

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With the increased use of prescription medications, pharmaceutical products are routinely found contaminating surface, ground, and drinking water worldwide.

Not only are lakes, streams, and municipal water contaminated, but wells tested in villages near drug manufacturing plants were all contaminated.

This presents several interesting and controversial moral issues.

First, people are being drugged by this contamination at low-levels against their knowledge and, perhaps, against their will. Water and air should be clean and uncontaminated.

Second, individual medical and health status may contraindicate exposure to certain drugs found in water. Given the wide variation of dosage through varying water consumption patterns, innocent people could be injured or killed.

Third, serious concerns about the potential development of mass antibiotic resistance exist. Exposure to antibiotics in the water supply builds bacteria's resistance to them. When an infection occurs and antibiotics are mandated, they may no longer be effective against the bacteria. This opens up the potential life-threatening strains of antibiotic resistant bacteria.

Though use and disposal of these drugs has been blamed, recent research suggests that wastewater from the production of drug is the largest factor.

Lawmakers are faced with the task of regulating wastewater distribution while balancing the huge political campaign contributions drug makers are often accused of buying loyalty with.

Reference

Fick, J, Söderström, H, Lindberg, RH, Phan C, Tysklind, M, and Joakim Larsson, DJ. Contamination of surface, ground, and drinking water from pharmaceutical production. *Environmental Toxicology and Chemistry*. DOI: 10.1897/09-073.1

