

# Toronto Telegraph

*Give us 15 minutes and we'll give you the world*

Volume 2015/0802

[Toronto Telegraph](#)

<http://www.torontotelegraph.com>

9:23 AM Monday 16 February 2015

[Toronto News](#)

[Breaking Business News](#)

[Breaking International News](#)

[Breaking Financial Markets News](#)

[General Editorials News](#)

[Winter Sports News](#)

[Cable News](#)

[Pharmaceutical News](#)

[Weird News](#)

[Fitness News](#)

[Utilities News](#)

[World Markets News](#)

[Facebook](#) [Tweet](#) [Email](#) [ShareThis](#)

Waste water treatment linked to antibiotic resistance

Toronto Telegraph (IANS) Sunday 15th February, 2015

Improving the process of waste water treatment and discharge is a key to arrest the rise of antibiotic resistance, shows a new research.

Greater numbers of resistant bacteria exist close to some waste water treatment works, and that these plants are likely to be responsible for at least half of the increase in antibiotic resistance observed, the findings showed.

"We have found that waste water discharges effect resistance levels and that improvements in our treatment processes could hold the key to reduce the prevalence of resistant bacteria in the environment," said co-lead on the research Elizabeth Wellington from University of Warwick in Britain.

Antimicrobial resistance is one of the largest threats to human health for a century, the researchers noted.

Increasingly large amounts of antibiotics are released into the environment through both human and agricultural use.

The researchers analysed water and sediment samples from 13 sites across the Thames river catchment and developed detailed models to predict the distribution of antibiotic resistant bacteria.

"Our research has shed further light on links between environmental pollutants and antibiotic resistance," study co-lead author William Gaze from University of Exeter Medical School pointed out.

"It has allowed us to uncover an association between a number of compounds - such as zinc, phosphorous and silicon - and antibiotic resistance," Gaze added.

"We think those bacteria that have developed to survive in environments rich in metals may also possess antibiotic resistance mechanisms," Gaze said.

The team also found that several other factors affected the prevalence of antibiotic resistance, such as changes in rainfall and land cover.

The study appeared in The ISME Journal.

**Share this article:**



[Back to Toronto Telegraph](#)

**Sponsored From Around the Web**