

GI pathogen at lake linked to human fecal contamination

August 29 2012

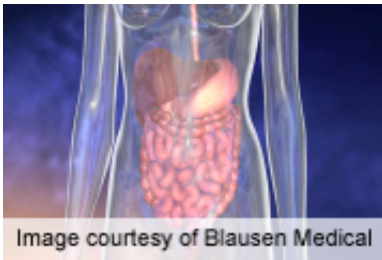


Image courtesy of Blausen Medical

Water at beaches along Lake Erie contains a pathogen associated with human fecal contamination, *Arcobacter* species, which are known to cause gastrointestinal illness in humans, and levels correlate with beach advisories, according to a study published in the August issue of *Applied and Environmental Microbiology*.

(HealthDay)—Water at beaches along Lake Erie contains a pathogen associated with human fecal contamination, *Arcobacter* species, which are known to cause gastrointestinal illness in humans, and levels correlate with beach advisories, according to a study published in the August issue of *Applied and Environmental Microbiology*.

To investigate whether recreational water is a potential source of *Arcobacter* transmission, Cheonghoon Lee, Ph.D., from The Ohio State University in Columbus, and colleagues measured *Arcobacter* levels and other fecal genetic markers in water sampled 35 times from four beaches along Ohio's Lake Erie coast, which were known to be

contaminated with fecal pollution, in the summer of 2010.

The researchers found *Arcobacter* at all beaches (75.2 percent of 129 samples), with occurrence and densities in concordance with the level of [fecal contamination](#). The human-specific fecal marker *Bacteroides* 16S rRNA gene showed a significant correlation with *Arcobacter* density. *Arcobacter* levels from the four beaches correlated with beach advisories. Most of the *Arcobacter* were closely related to *Arcobacter cryaerophilus*, a species known to cause [gastrointestinal disease](#) in humans.

"In summary, our results demonstrate that human-pathogenic *Arcobacter* was prevalent in the water at four Lake Erie beaches during the 2010 swimming season," Lee and colleagues conclude. "Since the major contamination sources of *Arcobacter* may originate from human-associated fecal contamination, it is important to identify and manage its sources to minimize public health risks linked to *Arcobacter* exposure in this region."

More information: [Abstract](#)
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