

Mercyhurst University study to identify levels of sucralose in Erie beach waters

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Researchers at Mercyhurst University continue to investigate the presence of potentially harmful chemicals in the beach waters of Presque Isle State Park and have added a new one to their list: sucralose. A chlorinated form of sucrose found in artificial sweeteners, sucralose is used in an estimated 4,500 products ranging from Halloween candies to diet sodas.

Studies suggest that approximately 95 percent of ingested sucralose is not metabolized by the body and is excreted into the water supply, said Dr. Amy Parente, assistant professor of chemistry and biochemistry at Mercyhurst.

Many chlorinated compounds have been found to be toxic to humans and, while sucralose appears to have limited toxicity, the long-term effects of exposure have yet to be determined.

Common practices aimed at removing contaminants from wastewater have not been shown to be successful at reducing levels of sucralose, Parente said.

Parente's research has identified detectable levels of sucralose in local Lake Erie waters, which may pose concerns for the environment. She has received a grant from the Regional [Science Consortium](#) at the Tom Ridge Environmental Center to confirm these levels, with the ultimate goal of understanding the impact on the local aquatic ecosystem.

Sucralose in the water can have repercussions like altered water taste and biological health effects, she said. Another problem is that sucralose in the environment can provide a false signal for nutrient availability so organisms feeling that their food supply is adequate show decreased [foraging behavior](#), which can ultimately affect their ability to survive.

Provided by Mercyhurst University

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