

Seafood: can there be too much of a good thing?

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Stony Brook University has launched a pilot epidemiologic study targeting avid fish consumers that will examine the benefits and risks of seafood consumption. The “Long Island Study of Seafood Consumption,” led by Jaymie Meliker, Ph.D., Assistant Professor, Graduate Program in Public Health, Department of Preventive Medicine, Stony Brook University School of Medicine, is now recruiting for study participants via a qualifying survey.

The study is funded by The Gelfond Fund for [Mercury](#) Research & Outreach, which supports research at Stony Brook that aims to improve the understanding of how mercury cycles in our environment and the health effects of methylmercury from fish consumption.

To learn more about the Long Island Study of Seafood Consumption and determine eligibility, see the [screening questionnaire](#).

According to a 2007 study by the New York City Department of Health and Mental Hygiene, nearly 25 percent of adults in New York City, and nearly 50 percent of Asian New Yorkers are estimated to have blood mercury levels that exceeded recommended levels for pregnant women. Humans are primarily exposed to mercury through consumption of seafood, which contains methylmercury, an environmental product formed in aquatic systems that is a neurotoxicant in the developing fetus, as well as linked to illnesses in adults if consumed at high levels. All fish contain methylmercury, but some bigger, longer-lived fish such as swordfish, shark, marlin, king mackerel, and certain species of tuna

(bluefin, big eye, and yellow fin) have the highest levels.

“Seafood, in general, is good for us, but with some types of fish having high levels of methylmercury, it is important for the public health community to better understand risks and benefits from eating specific fish,” says Dr. Meliker. “We hope the study results will help us to better communicate dietary recommendations to the public regarding the consumption of fish.”

Dr. Meliker says the study will analyze different types of seafood consumption categorically from data detailing study participants’ seafood intake. Researchers will also take measures of omega-3 and omega-6 fatty acids, as well as levels of mercury and selenium via blood samples from participants, all of whom must be non-pregnant adults who enjoy eating seafood.

Through The Gelfond Fund for Mercury Research and Outreach, Nicholas Fisher, Ph.D., Distinguished Professor in the School of Atmospheric Sciences at Stony Brook, leads Stony Brook’s Consortium for Inter-Disciplinary Environment Research (CIDER), a select group of faculty from diverse disciplines to address complex environmental problems, including the issue of mercury and seafood consumption.

CIDER has facilitated several activities to date. This year a distinguished group of experts came together to work on improving awareness of mercury in seafood within the medical community. The group recently published a paper in the Journal of Toxicology’s special issue on metals and diseases entitled, “[Recognizing and Preventing Overexposure to Methylmercury from Seafood Consumption: Information for Physicians](#).” The paper is designed to help physicians recognize the early signs and symptoms of methylmercury exposure before symptoms progress to more serious outcomes.

Susan Silbernagel, M.P.A., of The Gelfond Fund for Mercury Research and Outreach, lead author of the paper, and CIDER staff member, says that physicians should recommend their seafood eating patients follow the USDA guideline of consuming 8 to 12 ounces per week of low mercury fish. If patients eat more than that amount, or favor higher mercury fish, she suggests they choose low mercury fish most often.

Ms. Silbernagel and Dr. Meliker, also a CIDER faculty member, expect that the study results will reveal new information about human health in relation to [fish](#) consumption.

Provided by Stony Brook University

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