

**PRESS RELEASE**

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ST. LOUIS - Organic diets lower children's dietary exposure to two common agriculture pesticides used in U.S. agricultural production, according to a study by Emory University researcher Chensheng "Alex" Lu, PhD. The substitution of organic food items for children's normal diets substantially decreased the pesticide concentration to non-detectable levels.

Dr. Lu, an assistant professor in the department of environmental and occupational health, Rollins School of Public Health, Emory University, will review his findings from the recent study at the annual meeting of the American Association for the Advancement of Science (AAAS). The seminar, entitled, "Opportunities to Reduce Children's Exposures to Pesticides Through Organic Food and Farming," will take place on Sunday, February 19 at 1:45pm.

Former research has linked organophosphorus pesticides to causes of neurological effects in animals and humans, Dr. Lu says.

"The use of organophosphorus pesticides in residential areas have either been banned or restricted by recent regulatory changes," Dr. Lu continues. "This helps to minimize children's exposure, but still few restrictions have been imposed in agriculture."

In his initial research, Dr. Lu and his colleagues from Emory University, the University of Washington, and the Centers for Disease Control and Prevention specifically measured the exposure of two organophosphorus pesticides (OP) - malathion and chlorpyrifos - in 23 elementary students in the Seattle area by testing their urine over a fifteen-day period.

The participants, ages 3-11-years-old, were first monitored for three days on their conventional diets before the researchers substituted most of the children's conventional diets with organic food items for five consecutive days. The children were then re-introduced to their normal foods and monitored for an additional seven days.

According to Dr. Lu, there was a "dramatic and immediate protective effect" against the pesticides until the conventional diets were introduced. While consuming organic diets, most of the children's urine samples contained zero concentration for the malathion metabolite. However, once the children returned to their conventional diets, the average malathion metabolite concentration increased to 1.6 parts per billion with a concentration range from 5 to 263 parts per billion, Dr. Lu explains.

A similar trend was observed for chlorpyrifos. As the average chlorpyrifos metabolite concentration increased from one part per billion during the organic diet days to six parts per billion when children consumed conventional food. The study was funded by the United States Environmental Protection Agency.

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