Toxicant Exposures and the Obesity Epidemic

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The obesity epidemic in this country began in 1980 with a 23-year monotonic increase in the prevalence of obesity among American children and adults until a moderation occurred over the last few years [1]. There is hope that the factors related to the obesity epidemic have changed for the better. The standard explanation for the obesity epidemic—sedentary lifestyles and junk food—does not explain the pattern of the obesity epidemic, and the possibility of environmental causes has been hypothesized [2]. While studying the effects of exposure to the organophosphorus insecticide chlorpyrifos on memory in rats at a dose that did not produce symptoms of acute cholinesterase inhibition, we reported in this journal that rats exposed to chlorpyrifos had increased adipose tissue relative to controls [3]. Developmental exposure to chlorpyrifos has also been demonstrated to induce weight gain [4]. Chlorpyrifos and related compounds were extensively used for indoor

pest control in American homes, schools, and offices until the United States Environmental Protection Agency phased out this route of exposure beginning in 2000 [5]. While a temporal association does not imply causation, it is important that our knowledge of toxicants in the regulation of weight be studied.

Conflict of Interest None

References

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