

NewsmaxHealth

Pesticides Tied to Type 2 Diabetes

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By: Nick Tate

For the first time, environmental-health scientists have identified a direct link between pesticide chemicals and type 2 diabetes — a finding that may partly explain the dramatic rise in the health condition in recent decades.

The study, led by University of Granada researchers in Spain, found people with higher concentrations of DDE — derived from the pesticide DDT— are four times more likely to develop type 2 diabetes than others. In addition, exposure to a chemical contained in the common pesticide Lindano also boosts the risk of developing diabetes, according to the study, published in the journal *Environmental Research*.

“The mechanism of action by which [chemicals] increase the risk of diabetes is still unknown,” said lead researcher, Juan Pedro Arrebola. “However, some researchers have suggested that [pesticides] might cause an immunological response when they penetrate estrogen receptors in tissues associated with the metabolism of sugars.”

To reach their conclusions, Arrebola and his colleagues analyzed the concentrations of certain chemicals in the fat tissue of 386 adult patients of San Cecilio hospital, Granada, and Santa Ana hospital, Motril, Spain.

Arrebola explained that human fat tissue “can store potentially harmful substances, such as persistent organic pollutants” in chemical pesticides and industrial wastes ingested through food or absorbed through the air, water, or skin.

The results showed a direct relationship between the presence of such chemicals in the body and the development of type 2 diabetes, regardless of a patient's age, gender, or body weight. Since such chemicals tend to concentrate in body fat, Arrebola said the team's findings might explain why obese people are more likely to develop diabetes.

The researchers noted diabetes rates have significantly increased worldwide in the past few decades for reasons that aren't entirely clear. By 2030, 4.4 percent of the world's population is projected to be diabetic.