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Indoor pesticides linked to childhood leukemia, lymphoma

Published: Sept. 14, 2015 at 5:13 PM

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BOSTON, Sept. 14 (UPI) --

BOSTON, Sept. 14 (UPI) -- Children who are exposed to insecticides indoors are nearly 50 percent more likely to develop leukemia or lymphoma, according to a new study that linked exposure to the disease.

Both diseases are rare in children, however the incidence of childhood cancer has increased in the last several decades, even as more children survive them because of better treatment, according to the National Cancer Institute.

In the United States, about five out of every 100,000 children are diagnosed with leukemia, and overall 32.1 of every 100,000 children are diagnosed with some type of cancer.

"Although pesticides are necessary for the elimination of insects and other pests, the toxic chemicals used in agriculture and for public health can be harmful or even deadly in children," researchers said in a press release. "Exposure to residential indoor insecticides but not outdoor insecticides during childhood was significantly associated with an increased risk of childhood cancers, including leukemia and lymphoma, but not childhood brain tumors."

The researchers reviewed data from 16 previous studies on the possible association of childhood cancer and pesticide, finding that childhood exposure to the chemicals increases chances for leukemia by 47 percent and the chance of developing lymphoma by 43 percent.

Researchers caution that while the link was seen in data, pesticides may be helping to influence the development of other cancers and not necessarily only leukemia or lymphoma.

"We are starting to get to the place where there is enough science, it just starts to add up to say that we can't really ignore anymore," Dr. Catherine J. Karr, a professor of pediatrics and director of the Pediatric Environmental Health Specialty Unit at the University of Washington, told CNN. "This study is a nice contribution because it focuses in on what is the effect of home use of pesticides versus (other) exposures."

The study is published in the Journal of the American Academy of Pediatrics.