

Hartge, P et al., Residential herbicide use and risk of non-Hodgkin's lymphoma. *Cancer Epidemiol Biomarkers Prev*; 14(4), 934-937, 2005.

Abstract:

Objective: To estimate the effects of residential herbicide exposure on NHL risk.

Design: Population-based case-control study.

Setting: Iowa and metropolitan Detroit, Los Angeles, and Seattle, 1998 to 2000.

Participants: NHL patients ages 20 to 74 years and unaffected residents identified by random digit dialing and Medicare eligibility files.

Main Outcome Measures: Computer-assisted personal interviews (1,321 cases, 1,057 controls) elicited data on herbicide use at each home occupied since 1970. Levels of 2,4-dichlorophenoxy-acetic acid and dicamba were measured in dust taken from used vacuum cleaner bags in the current home (679 cases, 510 controls who had owned at least half of their carpets for 5 or more years).

Results: Herbicide use on the lawn or garden was similar among cases and controls (adjusted relative risk, 1.02; 95% confidence interval, 0.84-1.23). Estimated risk did not increase with greater duration, frequency, or total number of applications of herbicides to the lawn, the garden, or to both combined. Risk was not elevated for respondents who applied the herbicides themselves and not for those exposed during the 1970s, 1980s, or 1990s. We detected 2,4-dichlorophenoxy-acetic acid equally often in homes of cases and controls (78%). We found dicamba in homes of 15% of cases and 20% of controls. We also found no elevation in risk among the respondents who had the highest dust levels and highest self-reported exposures. We found no consistent patterns for specific histologies.

Conclusions: We found no detectable excess associated with residential exposures. Residential herbicide exposures are unlikely to explain the long-term increase in NHL.