

Studies Link Canine Cancers to Lawn Chemicals



Lawn chemicals, particularly, ones containing 2,4-D, have been linked to at least two types of canine cancers. Studies found that lawn chemicals travel to neighboring yards and inside homes, and chemicals have been found in the urine of dogs whose owners did not spray their lawns. The authors of the studies state how their findings

can be used to further research on human cancers.

A [six-year study](#) from Tufts University School of Veterinary Medicine linked lawn pesticides to canine malignant lymphoma (CML). Based on questionnaire results from dog owners, the study found "specifically, the use of professionally applied pesticides was associated with a significant 70% higher risk of CML. Risk was also higher in those reporting use of self-applied insect growth regulators."

[A different study](#) with similar methods discovered that herbicides also contribute to canine malignant lymphoma. The study found that herbicides containing 2,4-D doubled the risk of CML when dog owners used 2,4-D four or more times per year.

A [2013 study](#) concluded 2,4-D herbicides and other lawn chemicals make the risk of canine bladder cancer "significantly higher." Certain breeds, including Beagles, Scottish Terriers, Shetland Sheepdogs, West Highland White Terriers, and Wire Hair Fox Terriers are more susceptible due to a genetic predisposition to bladder cancer. Exposure to the chemicals can come from ingestion, inhalation, or contact with skin, and the amount of time needed to restrict pets from a sprayed area has not been determined.

The study found "Chemicals were detected in the urine of dogs in 14 of 25 households before lawn treatment, in 19 of 25 households after lawn treatment, and in 4 of 8 untreated households. Chemicals were commonly detected in grass residues from treated lawns, and from untreated lawns suggesting chemical drift from nearby treated areas." [Another study](#) found herbicide 2,4-D contaminants inside and throughout homes both prior to and after outdoor application. The study is evidence that pets absorb and track lawn chemicals, and lawn chemicals travel from their intended targets. The study concluded "removal of shoes at the door and the activity level of the children and pets were the most significant factors affecting residue levels indoors after application."

The studies state that they are important to the health of humans as well as pets. Non-Hodgkin's lymphoma has a similar histology and epidemiology as CML, and has also been linked to 2, 4-D exposure. 2,4-D has been sited to ["possibly" cause cancer](#), and the agricultural use of 2,4-D has increased due to weed resistance to Round-up.