

Canine cancers give clues about human health risks

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University of Queensland researchers are looking to dog owners for data on protecting pet—and human health—from environmental hazards.

Veterinary pathologist Professor Chiara Palmieri from UQ's School of Veterinary Science is examining [risk factors](#) for canine health in Australia, with a focus on [chemical exposure](#), indoor air quality and outdoor air pollution.

"Pets can be the proverbial 'canary in the coalmine' when it comes to [human health](#) risks," Professor Palmieri said.

"We love our dogs, but sadly they're often the first to suffer from environmental health hazards in our households.

"A classic example is a dog developing mesothelioma after their owner's house renovations reveal asbestos, or from over-application of certain flea repellents which can contain asbestos-like fibers.

"Chemicals like those found in [tobacco smoke](#) or garden products also put dogs at risk of common cancers like lymphoma or cancer of the bladder."

Professor Palmieri said gathering data on canine exposure to [environmental hazards](#) is crucial to understanding the origin of spontaneous cancers. "We're working on the principle that if it's toxic to our pets, it will be toxic to humans as well," she said.

Dogs are a better proxy for human health than many people realize.

"Dogs get cancer at roughly the same rate as humans, or even more," she said. "We estimate that a quarter of dogs will develop cancer at some point, increasing to almost 50% of dogs over the age of 10."

Professor Palmieri said canine cancer rates are rising, and for some of the same reasons as humans. "Things like longer lifespans, more focus on health indicators, increased use of diagnostic tests and the isolation of specific exposure risks," she said.

"If we can better understand the chronic exposures that are risky to dogs, we can do a better job of preventing them and decrease the incidence of certain tumors."

Palmieri's research team has devised a brief survey for [dog owners](#).

"We're compiling basic information about a dog's age, sex, breed, weight and vaccination status, grooming routine and the flea/tick control products used," she said.

"But we're also noting the location of the house, whether anyone in the house smokes and if the dog is exposed to herbicides and pesticides. It's important to gather this data so we can better protect our canine companions while protecting ourselves at the same time."

The survey can be completed [via this link](#).

Provided by University of Queensland

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