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Dogs Can Smell Cancer

Watch out. Your medical care may soon go to the dogs. That's because a new study confirms that, as some reports have suggested, dogs can smell cancer.

Researchers trained five ordinary dogs--three Labrador retrievers and two Portuguese water dogs--to sniff breath samples from both healthy folks and cancer patients. Out of 55 samples from patients with early-stage lung cancer, 31 samples from patients with early-stage breast cancer, and 83 healthy controls, the dogs identified the cancer patients between 88 and 97 percent of the time.

"We've seen anecdotal evidence before suggesting that dogs can smell the presence of certain types of cancer," says lead researcher Michael McCulloch, "but until now, nobody had conducted a thorough study." Doctors know that cancer cells release different metabolic waste products than normal cells. Apparently, dogs can smell these biochemical changes. Says McCulloch, "The dog's brain and nose hardware is currently the most sophisticated odor detection device on the planet."

In fact, scientists estimate that dogs can identify smells as much as 10,000 times better than you can. Some of the difference lies in their supersensitive snouts. While you have enough scent-detecting cells to cover a postage stamp, dogs have enough to cover a sheet of paper. You've got about 5 million sniffer cells. A bloodhound has 300 million.

But it's not all in the nose. Fido's brain may be only one-tenth the size of yours, but the part of his that processes smells weighs four times more, on average, than that part of yours. In other words, his brain is 40 times more dedicated to analyzing smells than yours is. Where you smell nothing, he smells the dead cells that fell to the ground hours ago and picks up your trail. And, based on tiny changes in the intensity of their odor, his brain tells him you went thataway! It might even tell him you need to see a doctor.

--Michael Himick

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