

Pets Get Cancer Too



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CANCER—a word that is very scary to all of us. We don't want our family or friends to be diagnosed with cancer, but who ever thought that your pet would be diagnosed with cancer? It is becoming much more common in household pets, with approximately 381 in 100,000 dogs and 155 in 100,000 cats developing cancer each year. Likely, this rise is due to our dogs and cats living longer than they used to with improved preventive medicine. Statistically, about 50 percent of dogs over the age of 10 will develop cancer. That being said, with the ever-growing importance of the pets in our lives, treatment of dogs and cats with cancer is an emerging field in veterinary medicine.

What is cancer?

Cancer is an abnormal growth of cells. This disease can originate from any organ or organ system in the body. Normally cells within the body replicate (divide) and make new cells to replace cells that are old or damaged. When cell division becomes uncontrolled, cancer may develop. The body has mechanisms which

regulate the growth and development of new cells to replace old and damaged cells. When this process becomes unregulated, abnormal growths develop.

Cancerous growths can be benign or malignant. Benign growths are masses that are very locally confined to an area. They do not invade surrounding tissues and do not spread to other locations within the body. Most benign tumors do not cause severe problems unless they begin to press against vital areas such as the brain. In contrast, malignant growths may either invade other tissues and/or spread to distant locations.

What are the signs of cancer in dogs and cats?

The signs of cancer in dogs and cats are truly dependent on the site from which the cancer originates. As previously noted, cancer can originate from anywhere in the body, thus the clinical signs can be quite variable. Any kind of swelling, lump or bump that does not go away and progressively gets larger should be checked out. Other signs to watch for include difficulty urinating or defecating, or any extreme changes in these habits. Unexplained weight loss or loss of appetite should be alarming as well. Other reasons to have your pet evaluated by your veterinarian for cancer include unexplained lameness, difficulty breathing, offensive odors or unexplained bleeding from any body cavity. These may be signs of cancer, but may have other explanations as well.

Most common cancers in dogs

- Skin Tumors: These may include benign tumors such as sebaceous gland tumors or lipomas, or more malignant tumors like mast cell tumors.
- Lymphoma: This is a cancer of the lymphatic system and most commonly presents as swollen lymph nodes, but may have other non-specific signs such as a decrease in appetite.
- Mammary tumors: These are most commonly seen in unspayed females or

females that were spayed later in life. This is most often seen as a lump in the mammary tissue.

- Abdominal tumors: The more common abdominal tumors are hemangiosarcoma of the spleen, lymphoma and mast cell disease. Tumors of the bladder and prostate may develop as well. Often signs of these types of cancer may be difficult to recognize until a later, more advanced stage of the disease.

- Bone Cancer: Develops in the bone; most common presenting sign is lameness.

- Testicular tumors: Seen in intact males in descended or undescended testicles.

What causes cancer?

Unfortunately, we don't really know what causes most cancers in dogs and cats. If we did, we could come up with good preventative measures to avoid cancers in the first place. However, there are some known carcinogens (cancer causing agents) that effect dogs and cats. These include environmental and chemical as well as hormonal causes. The commonly-used pesticide 2,4-D has been shown to have a positive association with canine lymphoma, and insecticides, including some used on pets, are known to be associated with bladder tumors. Squamous cell carcinomas in cats as well as cutaneous hemangiosarcomas in dogs have been linked to solar radiation. Implanted surgical devices may also increase the risk for bone cancers. But for most cancers, we do not have a good explanation as to why they occur.

Are there certain breeds that are predisposed to cancer?

Yes is the short answer to this question, which leads one to ask about a genetic link to cancer. There have been several breeds, specifically in dogs, that are predisposed to different types of cancer. We know that golden retrievers are predisposed to lymphoma, as well as other cancers in general. Boxers and Bernese mountain dogs are also predisposed to different types of cancer.



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What do I do if my pet is diagnosed with cancer?

The first thing to do is to stay calm. Many cancers that dogs and cats are diagnosed with are curable, and although many are not, their lives may be extended with an extremely good quality of life. Oncology specialists, who treat only dogs and cats with cancer, are available throughout the United States to help make appropriate treatment recommendations regarding pets with cancer. These are veterinarians who have done additional training and passed special licensing exams to call themselves specialists in veterinary oncology.

Are there options to treat dogs and cats with cancer?

Basically the same options exist for cancer therapy in veterinary medicine that exist in human medicine. Surg-

ery is the mainstay of therapy for most localized types of cancer that are surgically accessible. Many cancer surgeries are performed by general practitioners. There are also board-certified surgeons who are specifically trained in small animal surgery for more complex mass removals. Approximately 70 veterinary facilities exist in the United States that provide radiation therapy for animals. Radiation therapy can be used as a form of localized therapy for many types of cancer, including but not limited to soft tissue sarcomas, mast cell tumors, nasal tumors and brain tumors. Chemotherapy is also widely available to treat animals with cancer. Many of the same drugs used in humans are used to treat dogs and cats with cancer. The goal of chemotherapy in animals is to extend their lives for as long as possible, but to maintain a good quality of life. Even

“bone marrow transplant” options exist for dogs with lymphoma. This is performed at only a few select facilities in the United States.

When do we use chemotherapy to treat animals with cancer?

Chemotherapy may be used as the sole treatment for certain types of cancer, or may be used in combination with other treatments such as surgery and radiation therapy. Chemotherapy may be used to shrink large tumors that are unresectable, or may be used after surgery to attempt to kill any cancer cells that may be remaining. For cancers that have a high risk of spreading, chemotherapy may also be used after surgery to help delay or prevent metastasis (spread to other parts of the body).

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