Many of the signs seen with neoplasia are also seen with non-neoplastic conditions, but they still need prompt attention by a veterinarian to determine the cause. Neoplasia is frequently treatable and early diagnosis will aid your veterinarian in delivering the best care possible.

#### HOW IS CANCER TREATED?

Each type of neoplasia requires individual care. Treatment may include one or a combination of therapies such as surgery, chemotherapy, radiation, cryosurgery (freezing), hyperthermia (heating) or immunotherapy. It's important to note that pets often tolerate chemotherapy better than people. Your pet's overall health is important too, and your veterinarian may recommend dietary changes or other therapies to help your pet better respond to treatment. Pain management is also an important aspect of treatment.

Once you have a diagnosis, your veterinarian will discuss the best treatment option(s) for your pet and the risks and side effects associated with each option. In some instances, your veterinarian may refer you to a boardcertified oncologist (cancer specialist) or specialty clinic.

Some types of neoplasia can be cured, but other types can only be managed to decrease spread and prolong your pet's comfort and life as much as possible. Often the biggest factors determining the success of treatment for neoplasia are:

- Stage how large it is and how far it has spread in the body
- Type this indicates the chance for response to therapy, as well as both local invasion and the rate of spread to other parts of the body

Neoplasia is frequently treatable and early diagnosis will aid your veterinarian in delivering the best care possible. Euthanasia may be considered, especially when the type or stage of the neoplasia makes successful treatment unlikely, the cost of treatment is prohibitive for the owner, or the pet's quality of life is poor despite treatment. Before you make your decision for treatment or euthanasia, discuss the options with your veterinarian so you can make the best choice for your pet and your family.

#### WHAT IS THE SUCCESS RATE?

The response to treatment depends on the type and extent of the neoplasia, as well as the availability and effectiveness of therapy. There is no general rule regarding an individual pet's response to therapy, but treatment can be successful for many pets with neoplasia. Benign neoplasms are usually easier to treat, and treatment of any type of neoplasia is more likely to be successful if the neoplasms are detected early. Despite a lack of metastasis, benign tumors can sometimes have damaging effects on the patient; for example, brain tumors are often benign but the pressure they create on the surrounding brain tissue can be life-threatening. Although some neoplasms (especially the more aggressive cancers) cannot be cured, treatment can prolong your pet's life and improve their quality of life.



### For more information:

## www.acvim.org www.vetcancersociety.org



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# CANCER IN PETS

Brought to you by your veterinarian and the American Veterinary Medical Association





## PETS TODAY HAVE A BETTER CHANCE OF BEING SUCCESSFULLY TREATED

for neoplasia and cancer than ever before, thanks to advances in early recognition, diagnosis and treatment.

#### WHAT ARE NEOPLASIA, TUMORS AND CANCER?

Neoplasia is the uncontrolled, abnormal growth of cells or tissues in the body, and the abnormal growth itself is called a neoplasm or tumor. It can be benign or malignant. Benign neoplasms tend to grow slowly; displace, but do not tend to invade, the surrounding body tissues; and do not spread throughout the body. Malignant neoplasms, on the other hand, can be unpredictable and grow at various rates (sometimes rapidly), invade the tissues around them, and spread, or metastasize, to other parts of the body.

The word "tumor" or "mass" is often used to describe the actual swelling or other physical appearance of a neoplasm. The word "cancer" is often confused with neoplasia, but only malignant neoplasms are truly cancers.

#### HOW COMMON ARE NEOPLASIA AND CANCER?

Approximately 1 in 4 dogs will, at some stage in their life, develop neoplasia. Almost half of dogs over the age of 10 will develop cancer. Dogs get cancer at roughly the same rate as humans, while there is less information about the rate of cancer in cats. Some cancers, such as lymphoma, are more common in cats than in dogs.

Early detection and treatment are the best ways to manage neoplasia in pets.

#### HOW IS IT DIAGNOSED?

Neoplasia is often suspected on the basis of the pet's medical history and physical exam. Additional tests, such as radiographs (x-rays), blood tests, and ultrasound exams, may be necessary to confirm neoplasia.

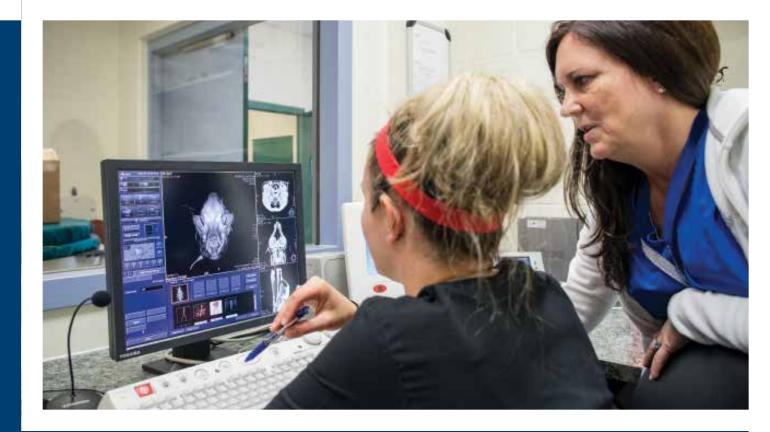
For most tumors, cytology (withdrawing some cells from a mass to examine under a microscope) can quickly provide basic information about the tumor type, and can confirm a diagnosis for certain types of cancer. For many tumors, a biopsy – taking a tissue sample from the neoplasm for examination under a microscope – is often necessary to confirm the diagnosis and help determine if the neoplasm is benign or malignant. Additional cytology or biopsies of other tissues, such as lymph nodes, may be necessary to determine how far a malignant neoplasm (cancer) has spread.

Advanced imaging such as computed tomography (CT) scan, magnetic resonance imaging (MRI), or positron emission tomography (PET) scan can also improve the understanding of the tumor's location and possible treatment options.

Oncology is a growing specialty area of veterinary care. Oncologists are veterinarians who have obtained additional training beyond veterinary school and are certified by the American College of Veterinary Internal Medicine (ACVIM) in oncology. They work together with your veterinarian to provide the best care for your pet with neoplasia.

#### IS NEOPLASIA PREVENTABLE?

Unfortunately, the cause of most neoplastic diseases is not known and, therefore, prevention is difficult. There is evidence that secondhand smoke increases the risk of some cancers in dogs and cats.



Spaying reduces the risk of mammary cancer in dogs. Half of all breast neoplasms in dogs and greater than 85% of all breast neoplasms in cats are malignant, and spaying female pets before 12 months of age reduces this risk. Neutering eliminates the risk of testicular cancer. Conversely, there is evidence that spaying and neutering can increase the risk of certain other cancers. Genetic predisposition to some cancers in certain breeds or breeding lines has also been reported. Talk to your veterinarian about the benefits, risks, and timing of spaying or neutering your pet.

#### POSSIBLE SIGNS OF NEOPLASIA IN PETS

Like people, pets can develop neoplasia affecting almost any organ or tissue in their body. The signs (symptoms) that may be observed vary based on the tissue involved and the severity of the neoplasia.

- Abdominal swelling
- Bleeding from the mouth, nose or other body openings
- Difficulty breathing
- Difficulty eating
- Lumps, bumps or discolored skin
- Persistent diarrhea or vomiting

Consult your veterinarian if you observe any of the following signs in your pet:

- Non-healing wounds
- Sudden changes in weight
- Unexplained swelling, heat, pain or lameness
- Visible mass/tumor