

## Cancer in Cats

The word “cancer” strikes fear into the hearts of all pet owners. It’s the very last thing that you want to hear your veterinarian say when you take your beloved feline companion in for a problem. Unfortunately, cancer in cats does occur more than anyone would like, and it’s good to know as much about it as you can in case you are ever given the horrible news.

### What Is Cancer?

Cancer, also called *neoplasia*, is the term given to a group of diseases that all have a common characteristic: they are the result of abnormal cells that begin to divide rapidly and overtake a certain tissue or system in the body. Often, these cells also metastasize, or begin to invade surrounding tissues or move through the blood stream to be introduced to different body systems.

### Most Common Cancers in Cats

- **Lymphoma:** This type of cancer is the most commonly-diagnosed in cats, and it affects the lymphatic system. This system carries immune products throughout the body to fight infections and diseases. The most common sites for the development of lymphoma in cats are the GI tract, liver, spleen, and kidneys. Lymphoma is can be associated with feline leukemia virus infection in cats.
- **Basal cell tumor:** This is a common type of skin cancer in cats. It usually appears as raised, round, pigmented masses on the skin. These tumors may be benign (non-aggressive, non-spreading) or malignant (aggressive, causing damage, and possibly spreading). Only surgical removal and biopsy can determine which type is present.
- **Squamous cell carcinoma:** This highly aggressive form of cancer affects the skin, usually light or unpigmented areas that can be damaged by the sun. It is often found on ear tips or the face of the cat in general. It is also frequently found in cats’ oral cavities.
- **Mammary cancer:** Similar to breast cancer in people, these tumors occur in a cat’s mammary, or breast tissue. Mammary cancer is most commonly seen in female cats that have not been spayed, and it is usually a type of cancer called adenocarcinoma.
- **Mast cell:** This type of cancer in cats most commonly occurs in the spleen or on the skin. The skin form of mast cell cancer in cats is often benign, while the splenic form is usually malignant.
- **Fibrosarcoma:** This type of cancer is extremely aggressive in the area of skin that it affects. It invades the local muscle, ligaments, and sometimes bone. Fibrosarcoma can occur spontaneously or secondarily to feline sarcoma virus. It is also widely accepted that certain vaccinations or any other injections may trigger factors that increase the risk of fibrosarcoma development in cats.

### Breeds, Sex, and Ages of Cats Most Commonly Affected by Cancer

Certain breeds of cats are more prone to particular types of cancers than others. For instance, Siamese cats and others with lightly-pigmented skin develop squamous cell carcinomas more frequently than other breeds.

Lymphosarcoma is often seen in cats between the ages of two and six. This is especially true for those cats that go outside because they are more likely to be exposed to and contract feline leukemia virus, which is a trigger for the development of lymphosarcoma. For most other cancers, older cats more commonly acquire them.

Males and females generally develop most cancers at an equal rate. One notable exception is mammary cancer, which is generally a disease of female cats, especially those that are not spayed or that were spayed as older cats.

### **Causes of Cancer in Cats**

Cancer in cats is caused by a group of factors. There is not one single cause of cancer, but rather a family of contributing influences that triggers it. Most of the time, hereditary and environmental factors work together to bring about the development of cancer. Feline transmissible viruses, especially feline leukemia virus, can also contribute to certain cancer types in cats.

### **Signs of Feline Cancer**

The signs of illness that a cat afflicted with cancer may show vary widely depending on the type of cancer that is involved. The signs usually relate to the system or systems that are affected. For instance, kidney cancer will cause signs related to kidney function such as increased water consumption and urination. Cats are also great at hiding illnesses, so some of them do not show significant signs of cancer until the condition is quite advanced. Some of the general signs that a cat with cancer might show are:

- **Lumps or bumps** in the skin, under the skin, or protruding from the abdomen. Abdominal masses may be more visible when a cat is lying or sitting in a certain position.
- **Bad breath** is often present, especially in cases of mouth or kidney cancer.
- **Drooling** is frequently seen with oral cancer and sometimes also with internal neoplasia.
- **Listlessness** is common in cats afflicted with cancer. They may not be as interested in playing or getting involved in the household's activities.
- **Decreased appetite and weight loss** are seen with most types of cancer but sometimes not until the advanced stages.
- **Lameness**, or limping, may occur with bone cancer and sometimes cancers of the blood or lymphatic systems.
- **Vomiting and diarrhea** are often seen in feline cancer cases. These gastrointestinal disturbances may occur secondarily to a wide variety of cancer types.
- **Changes in the skin or hair coat** may indicate cancer in cats. This often manifests as persistent skin infections, patchy redness or hair loss, raised masses erupting on the skin, or changes in skin color.

- **Difficulty breathing or coughing** may be a sign of lung or heart cancer. Lung cancer in cats is often secondary to cancer in some other part of the body.
- **Behavior changes** such as withdrawal and hiding are commonly seen in cats suffering from cancer.

***Cancer can cause virtually any sign and sometimes no signs at all in cats. It's important to visit your veterinarian routinely and at the first sign of ANY change in behavior or body condition.***

### **Diagnosing Cancer in Cats**

The diagnosis of feline cancer begins with a thorough history and examination by your veterinarian. From there, the following tests may all be helpful in diagnosing, staging, and/or developing a prognosis for your cat's neoplasia.

- **Fine needle aspirate.** This is the process of inserting a small needle into a mass and removing some cells to be examined under a microscope. Fine needle aspirates are most often used on skin masses, but they can be done on internal masses when ultrasound technology is used as a guide for inserting the needle.
- **Biopsy.** This test involves removing a piece of tissue from a tumor so it can be examined under a microscope. Biopsies can be done in several ways:
  - A skin mass may be removed in its entirety for biopsy.
  - An exploratory internal surgery can be done, and all of a diseased mass or area can be removed for microscopic examination.
  - A small piece of abnormal tissue may be removed for diagnostic purposes because there is too much diseased area to remove entirely or a tumor is in too delicate of an area to attempt removal.
- **Complete blood count (CBC).** A CBC is a test that is done on blood, and it gives the veterinarian quite a bit of information. Knowledge of a cat's white blood cell, red blood cell, and platelet numbers and health can all contribute to the diagnosis and prognosis development of a feline cancer.
- **Blood chemistries.** These blood tests mainly evaluate organ function. It is important to know the general status of a cat's systems when diagnosing cancer as well as during the process of developing a treatment plan and prognosis.
- **X-rays.** X-rays, also called radiographs, can be used to diagnose tumors in cats if they are large enough. They can also be helpful in evaluating the general health status of the patient and in looking for potential spread of an already-diagnosed cancer when developing a treatment plan and prognosis.
- **Ultrasound.** This technology uses sound waves to create pictures of internal body structures. It is useful in diagnosing some tumors that occur inside the chest or abdominal cavity of cats.
- **CT scan.** This is a type of x-ray that uses a computer to create cross-sections and three dimensional images of body structures. It can sometimes find smaller tumors or detect the spread of cancers into internal tissues more specifically than plain x-rays or ultrasound can.

- **MRI.** This procedure uses radio waves and magnetic fields to generate images of internal organs and body structures. This is another procedure that can sometimes detect smaller or more widespread cancers or tumors deeper in a cat's body.

### Treatment of Feline Cancer

The treatment for cancer in cats varies depending on the following factors:

- **Type of cancer present.** Cancer treatment is specific to the type of cancer. Veterinary oncologists are veterinarians who specialize in cancer treatment. Often cats with cancer are referred to one of these specialists for treatment.
- **Stage and extent of spread of the disease.** Treatment will depend on how advanced the cancer is and how far it has spread in the body.
- **Age of the cat.** Your cat's age will play a role in how aggressively the cancer may be treated. Older cats may need gentler treatment courses than younger ones.
- **Concurrent health conditions of the cat.** If your cat has any other medical issues besides the cancer, the treatment may need to be modified or changed to accommodate that. For instance, using certain chemotherapy drugs in a cat that already suffers from kidney failure may not be possible.

Cancer is treated with one or a combination of the following treatments, depending on the above factors:

- **Surgery.** Treatment of many types of feline cancers starts with the removal of as much of the visible cancer, or tumor, as possible. Depending on the type of cancer, how advanced it is, and how much the surgeon is able to remove, surgery may be curative in some cases.
- **Chemotherapy.** Some types of cancer are treated with medications. These may be intravenous (given into a vein) or oral (given by mouth). Chemotherapy is sometimes the first treatment that is used, but it is also often employed after surgery has been done to remove the bulk of a tumor or tumors.
- **Radiation therapy.** This treatment involves delivering focused beams of some type of radiation directly to a tumor. It is used in conjunction with surgery and/or chemotherapy in some cat cancers. It can also be used to reduce the signs of illness and extend the life of some cats with inoperable tumors or with cancers that aren't expected to regress completely with other treatment options.
- **Immunotherapy.** Treatments aimed at stimulating the cat's immune system to fight the cancer are available for some types of cancer in cats.
- **Palliative care.** In cases where an owner doesn't want to pursue cancer treatment for their cat, a cat is too old or otherwise sick to endure treatment, or the cancer is too advanced for treatment to be effective, palliative care may be used. This could include pain medication, fluid administration, anti-nausea medications, and other symptomatic treatments.

### Are There Alternative Therapies Available for Cats with Cancer?

There are many alternative therapies that may help your cat when the diagnosis is cancer.

- **Antioxidants** such as Vitamins C and E and selenium can help neutralize free radicals in the body, minimizing further cell damage from cancer. Intravenous (IV) delivery is the most efficient way for a cat to be given antioxidant therapy.
- **Chiropractic and acupuncture therapies** are both useful for cats with cancer. They can provide pain management, immune system stimulation, and specific therapy in certain instances.
- **Herbs and herbal mixtures** such as Life Gold – Cat Cancer Support may be helpful in detoxifying the body and supporting the immune system when a cat is fighting cancer.
- **Homeopathic treatments** are used to combat cancer in cats. A veterinarian who is trained in homeopathy should be consulted to obtain the best results with this type of therapy.
- **Dietary therapy**--a good holistic, natural perferably homemade diet that is high in anti-oxidants is preferrable for cats with cancer. Fish based diets are natural choices for supporting the cat's immune system and internal organs.

by Dr. Jan Huntingford - September 2015

<http://www.petwellbeing.com/blog/cats/understanding-cancer-in-cats>