Cancer in Cats - Causes, Symptoms & Treatment

What is cancer?

Also referred to as **malignant neoplasms** or **malignant tumours**, cancer is the uncontrolled division of cells that normally should be restrictive in their growth. Tumours are split into two categories, **malignant** (cancerous) or **benign**.

- Benign tumours grow slowly, are surrounded by a capsule and do not invade neighbouring tissue or spread to other areas.
- Malignant tumours, on the other hand, tend to grow rapidly, invade surrounding tissue and spread to other parts of the body.

Cancers are often described by the part of the body they originate from, for example, breast, brain, liver, bile duct or pancreatic cancer. Cancer is also classified by the type of cell involved.

Cancer is a leading cause of death in senior cats.

Classification of cancers:

- **Carcinoma** originates from the epithelial cells which line the inner and outer parts of the body and can be split into two types. **Adenocarcinoma** originates in an organ or gland and **squamous cell carcinoma** which originates in the squamous epithelium.
- **Leukemias** cancers of the blood cells
- **Lymphoma** originates from the lymphoid tissue
- **Myeloma** originates from the cells in the bone marrow
- **Sarcoma** originates from the connective or bone tissue

So, a cat may have skin cancer and it could be a melanoma, squamous cell carcinoma or a basal cell carcinoma for example. All skin cancers, but originating from different cell types. I have lost two cats both of whom had nasal cancer. One cat had osteosarcoma (bone cancer) and the other had squamous cell carcinoma which originated from the lining of the nose. Identical symptoms in both cats but different types of cancer.

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<th>Common cancers in cats</th>
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<td>- <strong>Lymphoma</strong> (cancer of the lymphatic system). This is the most common cancer in cats, responsible for 1/3rd of all cancers. It arises from lymphoid tissue, which is found throughout the body and may involve any organ or tissue. Cats with feline leukemia virus are 60 times more likely to acquire lymphosarcoma than those without. Cats living in smoking households are twice as likely to acquire lymphosarcoma. [2]</td>
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<td>- Skin cancer – Squamous cell carcinoma which can affect cats who spend time outdoors in the sun, especially light coloured cats. The ears and nose are the most common sites. Other types of skin cancer may include melanoma, basal cell carcinoma, and mast cell tumours.</td>
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<td>- <strong>Mammary cancer</strong> – The most common type of malignant mammary cancer in cats is adenocarcinoma making up 80% of mammary tumours.</td>
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<td>- <strong>Fibrosarcoma</strong> – An aggressive type of malignant growth (cancer) that originates in the fibrous connective tissue.</td>
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Cancer can occur in cats of any age, but it is most commonly seen in middle-aged to older cats. It is a leading cause of death in elderly cats.

**Causes:**

There are a number of causes of cancer in cats, some of which include:

- Carcinogens (agents which can cause cancer). Examples of carcinogens include UV radiation, X-Rays, certain chemicals, environmental toxins, cigarette smoke.
- Viruses such as feline leukemia virus.
- Genetic predisposition.

**Symptoms:**

Cancer symptoms will vary depending on the location and part of the body affected by cancer. Some common symptoms may include:

- Change in bowel or bladder habits (constipation, diarrhea etc)
- Lethargy
- Loss of appetite
- Unexplained weight loss
- Blood in urine or feces
- Abdominal pain
- Difficulty breathing
- Disfigurement
- Unexplained bleeding
- Lameness due to primary bone cancer or metasisis
- Difficulty eating (due to oral cancer)
- Lumps, bumps, crusty lesions on any part of the body
- Swollen lymph nodes
- Vomiting (sometimes with blood)
- Sores or ulcers that don’t seem to heal
- While rare, cats with pulmonic neoplasia (lung cancer) can develop a condition known as lung-digit syndrome where cancer spreads to the digits of the feet resulting in bone lysis (destruction). Cats present with lameness, swelling of the toes and pain.

**Diagnosis:**

Your veterinarian will perform a complete physical examination of your cat and obtain a medical history from you. It may be possible to make a presumptive diagnosis if there is an obvious growth. However, a definitive diagnosis must be made by microscopic evaluation of a sample of the tumour.

Tests he may need to perform include:

- **Baseline tests**: Complete blood count, biochemical profile and urinalysis to evaluate the overall health of your cat and look for signs of infection or inflammation.
- **Biopsy**: If there is an obvious growth your veterinarian will take a biopsy which will be sent to a laboratory for evaluation.
- **Imaging**: X-rays and/or ultrasound may be necessary to evaluate the internal organs and look for tumours inside the body.

**Treatment:**

Treatment may vary depending on the location but may include:

- Surgery to remove a tumour and surrounding tissue if possible. Sometimes cancer may develop in a part of the body which makes it impossible to remove. In which case chemotherapy may necessary to shrink the tumour. This isn’t curative, but it will enable your cat to live longer.
- Chemotherapy is sometimes given after surgery to kill cancer to kill any cells left behind.
- Radiotherapy.

A specialist veterinary centre may administer chemotherapy. It doesn’t cause hair loss in cats but in my experience, did cause our cat to be lethargic and off her food for one to two days after administration.

**Prevention:**

It is not always possible to prevent cancer in cats but there are certain things we can do to reduce the chances of some types of cancer.

**Spay and neuter your cat**

Spayed and neutered cats don’t roam as much or get into fights, reducing the chances of contracting FIV or FeLV. Intact females are at greater risk of developing mammary cancer than spayed females and castration eliminates a male cat's chances of developing testicular cancer.

**Household chemicals**

We can’t avoid the use of certain treatments to prevent parasites, nor should we, good parasite control is vital. I
do think we can try to reduce exposure to household chemicals by using natural products such as white vinegar and bicarbonate of soda in our day to day cleaning. Obviously, these are not effective where proper disinfection is necessary, but the average home uses a lot of chemicals.

**Vaccines**

There has been a lot of talk about over-vaccinating our cats over the past 10 years. Only you and your veterinarian know your cat’s individual circumstances, but it is a discussion you should have. The new recommendation by the Australian Veterinary Association as well as the American Association of Feline Practitioners (page six) is to give your low-risk, household cats their core vaccinations (F3) as a kitten. Three vaccinations spaced 4 weeks apart at 8, 12 and 16 weeks, followed by a booster at 12 months and then every three years. This can reduce the risks of injection site sarcoma. Local regulations or individual risk factors may warrant more frequent vaccination as well as the administration of some non-core vaccinations.

*The Australian Veterinary Association (AVA) believes that in most cases, core vaccines need not be administered any more frequently than triennially and that even less frequent vaccination may be considered appropriate if an individual animal’s circumstances warrant it. However, local factors may dictate more frequent vaccination scheduling. These recommendations may be ‘off label’ for some vaccines.*

**AVA vaccination of dogs and cats**

**Reduce sun exposure**

Try to keep cats inside between the hours of 10 am – 4 pm. This is even more important if your cat is white or pale cats. Cats should have access to a shady area to get out of the sun and if you notice any redness or damaged tissue, especially around the ears, seek veterinary attention.

**Smoke outside**

Cigarette smoke is a carcinogen in both cats and humans.

**Schedule annual checkups**

Even if you decide to go with triannual vaccinations, it is still important your cat see a veterinarian at least once a year and twice a year once he reaches 7 years of age.

If you notice any changes including lumps or bumps or other changes, seek veterinary attention immediately. Some cancers are very treatable if caught early.