

# Squamous Cell Carcinoma

## ABOUT THE DIAGNOSIS

Squamous cell carcinoma is a malignant tumor (cancer) that arises from either the skin or mucous membranes. Skin tumors in cats frequently involve the lips, nose, or ears. White-skinned or lightly pigmented cats are affected more often, and tumor development is related to exposure to sunlight, just like in humans with skin cancer: the greater the amount of sunlight exposure, the greater the risk of squamous cell carcinoma on white skin. Tumors of the mucous membranes may arise from the gums, tongue, tonsils, or lining of the sinuses. Another form of squamous cell carcinoma in cats, called Bowen's disease, causes multiple skin tumors. Squamous cell carcinomas in dogs occur most frequently on the toes, scrotum, nose, legs, and anus. Large-breed dogs with pigmented skin and black haircoats are at higher risk of squamous cell carcinoma of the toes.

Squamous cell carcinomas often are slowly developing (they often take weeks to enlarge visibly). The skin cancers often start with an area of scabbing and dandruff—the area often eventually becomes ulcerated and produces a raw, pink, glistening lesion. Most squamous cell carcinomas of the skin look like open sores or draining tracts. Some appear as wart-like skin masses that bleed easily. Tumors of the mouth and tongue may cause difficulty eating, loose teeth, drooling, foul breath, and weight loss. Squamous cell carcinoma of the nasal sinuses may cause sneezing and a bloody nasal discharge.

A biopsy is needed to confirm squamous cell carcinoma. For the biopsy procedure, a small sample of the tissue is removed while your pet is under anesthesia. In some cases, the entire tumor may be removed at this time if no vital structures are involved. If squamous cell carcinoma is diagnosed based on the biopsy, radiographs (x-rays) or computed tomography (CT scans) often are necessary to look for spread of the tumor (metastasis) to the lungs, underlying bones, or lymph nodes because the presence of metastasis makes the overall outlook (prognosis) much more negative and may be grounds for euthanasia if the pet appears to be suffering. The need for radiographs or CT scans depends on the location of the tumor since squamous cell carcinoma in some locations is more likely to spread to particular areas of the body.

## LIVING WITH THE DIAGNOSIS

The outlook for pets with squamous cell carcinoma depends on how soon the cancer is discovered and on the location of the tumor. Tumors in some locations tend to invade underlying bone or spread more quickly, making treatment more difficult.

## TREATMENT

Surgical removal of the tumor is the treatment of choice. However, squamous cell carcinoma may be deeply infiltrative and difficult to remove entirely (inoperable). Even when the growth is completely removed, it is sometimes possible for microscopic extensions of the tumor to have persisted in the remaining tissue, requiring another operation if that is recommended by the biopsy results. If complete surgical removal has not been achieved, is not possible because of vital organ involvement, or if the tumor has spread to the lungs or lymph nodes, radiation therapy or chemotherapy may be

recommended. These measures may be helpful in terms of comfort (palliation), but tumor persistence or recurrence is common if the entire tumor could not be removed surgically. Small squamous cell carcinomas of the skin can sometimes be treated by cryosurgery, a procedure performed under anesthesia where the tumor tissue is not removed but actually killed by destroying it with a jet of liquid nitrogen directed onto the tumor until the tumor is frozen and it simply breaks off. Precancerous stages (scabs, sores) on the face or ears of cats may be treated by cryosurgery or the application of medicated ointments containing specific prescription ingredients (synthetic retinoids) directly to the area. If advanced squamous cell carcinoma occurs on an ear, the involved part of the ear should be removed. Squamous cell carcinoma of the toe or nail bed generally cannot be removed entirely without leaving microscopic traces of tumor to regrow. Since squamous cell carcinoma can spread to other organs if not removed, the treatment of squamous cell carcinoma of the toe is surgical amputation of the toe.

## DOs

- If your pet has surgery, check the surgical incision daily for increasing redness, swelling, or discharge, which could indicate infection.
- Restrict your pet's exercise until sutures are removed.
- Protect lightly pigmented skin with sunscreen or have the areas tattooed. Limit your pet's exposure to bright sunlight, especially if pale-skinned (white or pale fur or hairless skin).
- Take your pet for yearly oral examinations (often with dental cleaning). Such examinations can identify cancers of the gums or mouth at an early stage when there is a much better chance of achieving a good response to treatment.
- For a second opinion if the diagnosis is uncertain, and for the latest treatment options, your veterinarian may refer you to a veterinary oncologist. These veterinary cancer specialists can be found in most large urban centers in North America and Europe (directories: [www.acvim.org](http://www.acvim.org), [www.vetspecialists.com](http://www.vetspecialists.com), [www.ecvim-ca.org](http://www.ecvim-ca.org)) and are called Diplomates of the American (or European) College of Veterinary Internal Medicine, Specialty of Oncology.

## DON'Ts

- Do not underestimate the potential seriousness of a raw, moist, persistent sore anywhere on the skin, especially the locations mentioned above. Squamous cell carcinomas often begin as "harmless-looking" moist sores that are persistent for more than a few days. This is the stage at which a veterinary evaluation, including anesthesia and biopsy of the lesion, is most rewarding. Catching squamous cell carcinoma at an early stage offers a much better chance of cure.
- After surgery:
  - Do not bathe your pet until any skin sutures (stitches) have been removed.
  - Do not allow your pet to lick or chew the incision.

## WHEN TO CALL YOUR VETERINARIAN

- Postoperatively: if there is swelling at or drainage from the surgical incision or if your pet is licking the incision.

## **ROUTINE FOLLOW-UP**

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- The amount of monitoring needed depends upon the location of the tumor. Tumors in locations where aggressive behavior is common, such as the nail bed or the mouth, should have periodic recheck visits, perhaps including follow-up x-rays or scans to screen for tumor spread. Follow the schedule recommended by your veterinarian.

## **ADDITIONAL INFORMATION**

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- Early detection is important in the treatment of squamous cell carcinoma. Have scabby or raw pink areas on the skin, lumps, or sores that do not heal checked by your veterinarian.



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