

# Squamous Cell Carcinoma in Cats

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Squamous cell carcinoma (SCC) is a fairly common tumor found in cats. There are 3 major types of squamous cell carcinoma in cats:

- Oral squamous cell carcinoma occurs in and around the mouth. It is the most common malignant oral tumor in cats.
- Solar-induced cutaneous squamous cell carcinoma is a cancer of the skin that occurs due to exposure to the sun.
- Bowen's disease, also called Bowenoid carcinoma, or squamous cell carcinoma in situ, is a skin cancer that usually occurs in multiple sites but progresses very slowly.

Since each of these types of squamous cell carcinoma have different characteristics and is treated differently, we will discuss each on separately.

### Oral squamous cell carcinoma in cats

Oral squamous cell carcinoma in cats can occur in the mouth, on the lips, on or under the tongue, or in the tonsil area.

Which cats are at risk for developing squamous cell carcinomas?

Cats with oral squamous cell carcinomas are usually over 10 years of age. One risk factor for oral squamous cell carcinomas in cats is second hand smoke. Cats living in households with smokers appear to have an increased risk of developing oral squamous cell carcinoma.

What are the symptoms of oral squamous cell carcinoma in cats?

Cats with oral squamous cell carcinoma may have lesions in or around the mouth. The lesions often are ulcerated. Cats with this cancer may show a loss of appetite, weight loss, bad breath, drooling, or frequent chewing motions.

How is oral squamous cell carcinoma diagnosed in cats?

Diagnosis is usually confirmed by a biopsy. The biopsy can confirm the presence of a squamous cell carcinoma and also help stage the tumor (determine how invasive it may be). Radiographs (x-rays) are used to determine the extent of the problem. Computed tomography (CT) scans provide even more information. Lymph node biopsies may be performed to determine if the tumor has spread.

How is oral squamous cell carcinoma treated in cats?

Surgical removal of the tumor and the surrounding tissue is usually the treatment of choice. This can be difficult in the case of oral tumors that have become invasive. It often means a portion of the jaw must be removed. Surgery alone is seldom successful for oral tumors. Treatment may also include radiation therapy and chemotherapy. Supportive care including pain control and providing adequate nutrition is vital. Unfortunately, recurrence of the tumor is quite common. The prognosis is better if the tumor is identified very early and treatment is intensive.

### Solar-induced cutaneous squamous cell carcinoma in cats

Solar induced squamous cell carcinoma of the skin typically involves the nose, ears, lips, and eyelids. It is common to find it in more than one site.

Which cats are at risk for developing solar-induced cutaneous squamous cell carcinomas?

Cats that spend time outdoors in the direct sunlight are at an increased risk of developing solar-induced squamous cell tumors. Cats with thin, light colored hair (especially white) on these areas are at the greatest risk. Blue-eyes white cats are the most susceptible. Cats are usually over 3 years of age when diagnosed with solar-induced cutaneous squamous cell carcinoma.

What are the symptoms of solar-induced squamous cell carcinoma in cats?

Squamous cell carcinoma of the skin usually occurs on the ears or bridge of the nose, eyelids, face, and sometimes the toes. The lesions may appear as ulcers with or without scabs, or as nodules with a rough surface, similar to a wart. These lesions are usually slow growing.

How is solar-induced cutaneous squamous cell carcinoma diagnosed in cats?

Biopsies are performed to obtain the diagnosis. In some cases, this cutaneous squamous cell carcinoma can spread to the lymph nodes, lungs, and even the bones.

How is solar-induced squamous cell carcinoma treated in cats?

Surgical removal of the tumor and the surrounding tissue is usually the treatment of choice. Radiation therapy or cryosurgery ("freezing" the tumor) may also be used. Sometimes chemotherapeutic drugs are injected directly into the lesion. Prevention of recurrence consists of limiting the time that susceptible animals spend out in the sun. When thin-coated or sensitive

animals do spend time outdoors during the prime daylight hours, a waterproof SPF 15 or greater sun block should be used on the ears and nose area.

Bowen's disease in cats

Bowen's disease is uncommon in cats, and appears to be related to a suppressed immune system and infection with papillomavirus.

Which cats are at risk for developing Bowen's disease?

Cats who are immunosuppressed and/or infected with papillomavirus appear to be at increased risk.

What are the symptoms of Bowen's disease in cats?

Unlike solar-induced cutaneous squamous cell carcinoma in cats, Bowen's disease usually occurs in pigmented areas of the body that do not receive direct sunlight. It commonly appears in multiple sites on the neck, body, and limbs. Lesions may come and go. Long-standing lesions can develop into invasive squamous cell carcinoma.

How is Bowen's disease diagnosed in cats?

Biopsies are performed to obtain the diagnosis.

How is Bowen's disease in cats treated?

Surgical removal of the tumor and the surrounding tissue is usually the treatment of choice. If there are a large number of lesions, they can be treated with imiquimod (Aldara), which is applied directly to the lesions. Early treatment is important, before the lesions can potentially become invasive.