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## FELINE SOLAR INDUCED SQUAMOUS CELL CARCINOMA

### What is solar induced squamous cell carcinoma?

Squamous cell carcinoma involving the skin is relatively common in cats. Squamous cell carcinomas (SCC) are usually found in unpigmented or lightly pigmented skin. Sites commonly affected include the sparsely haired areas of the tip of the nose (nasal planum), ear tips and eyelids. In many patients there is a recognized solar (sun) exposure relationship and are often referred to as “actinic” SCC.

### How is it diagnosed?

Squamous cell carcinoma may present as either a distinct mass lesion or an erosive lesion which can mimic infection or trauma. Erosive lesions that do not respond to antibiotics should increase the suspicion of SCC in cats. Definitive diagnosis requires a biopsy. Once SCC has been diagnosed, evaluation of the regional lymph nodes and chest X-rays are recommended to evaluate the stage of disease. Routine blood work is also recommended to evaluate the overall health of your cat.

### How is it treated?

#### Cryotherapy

Very small (less than 1 cm), superficial lesions may be treated with cryotherapy. Cryotherapy is the use of cold temperatures to kill cells. Liquid nitrogen is used to perform cryotherapy. The cold temperature creates an “ice ball” which is then capable of destroying cancer cells in the immediate vicinity of the cryotherapy probe. Many cats will have complete and permanent control of the SCC with cryotherapy; however some cats will need to have multiple treatments over time.

#### Radiation therapy

Radiation therapy may be recommended for superficial lesions or as an adjuvant to surgery when surgery fails to completely remove the tumor. Radiation therapy is performed Monday through Friday daily for 3 weeks. General anesthesia is required for treatment to keep the pet still. For small tumors, radiation therapy will often control the tumor for several years.

#### Surgery

Large, invasive lesions are best treated with surgical removal. Depending on the extent of the tumor, removal of the pinna of the ears or nasal planum may be required. If surgery achieves complete margins, long term control of the tumor is possible.



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## What is the prognosis?

If the SCC is diagnosed early while still small and superficial, the outcome is good with any of the above mentioned therapies. Once the tumor has become large and invasive, it will not respond to cryotherapy or radiation therapy. Chemotherapy has not been shown to be effective with SCC. For large, invasive tumors, aggressive surgery is necessary to control the tumor. Many cats will develop other sites of SCC over time. There is no known effective preventative therapy for solar induced SCC. By the time the tumor develops, the sun damage has been done and keeping the cat out of the sun will not usually help to prevent further lesions from developing.