



NASAL AND SINUS TUMORS

Nasal and Sinus Tumors are abnormal growths that begin in and around the passageways within the nasal cavity and sinuses. Nasal and sinus tumors can be noncancerous (benign) or they can be cancerous (malignant). A biopsy is needed to determine the diagnosis. Although these tumors can affect any dog, they are more frequently seen in older patients. The risk of nasal cancer suggests environmental influences.

Types of Nasal Tumors:

Adenocarcinoma, Chondrosarcoma, Fibrosarcoma, Lymphoma, Squamous Cell Carcinoma, Osteosarcoma, Carcinomas, Undifferentiated Sarcoma, Polyps



Pets at increased risk for this tumor type:

Labrador Retrievers, Golden Retrievers, Collies, German Shorthair Pointers, Shetland Sheepdogs, Basset Hounds

COMMON SYMPTOMS

- ▶ **Bloody nasal discharge**
- ▶ **Nasal discharge containing mucous and pus**
- ▶ **Facial Deformity**
- ▶ **Sneezing**
- ▶ **Shortness of breath**
- ▶ **Abnormal protrusion of the eye**
- ▶ **Discharge from the eyes due to clogged tear ducts**

DIAGNOSING & TESTING

- ▶ **Bloodwork:** A blood sample is examined to assess organ function and identify irregularities, including the potential presence of concurrent diseases
- ▶ **X-Rays/CT imaging:** Diagnostic imaging to confirm whether a tumor is visible and identify its size and location
- ▶ **Rhinoscopy:** A non-surgical procedure in which a scope is used to look into the nasal cavity for irregularities
- ▶ **Biopsy:** A tissue sample is examined microscopically to confirm a diagnosis and learn more about the tumor, including its type, stage, and grade

TREATMENT OPTIONS

EVERY CANCER IS DIFFERENT.

ASK YOUR VETERINARIAN ABOUT HOW THESE OPTIONS APPLY TO YOUR PET.



Conventional radiation therapy can be used alone or following a surgery where some cancer cells remain. A typical treatment course consists of anywhere between 15-21 daily treatment sessions and anesthetic events.



Chemotherapy is a common cancer treatment. It is typically used to treat systemic cancers or cancers that have spread.



Palliative therapies help increase comfort, but do not treat the cancer.



Stereotactic radiation (SRS/SRT) is an advanced form of radiation therapy that is a proven standard of care in human oncology. SRS/SRT is now also available to pets:

- ▶ **Noninvasive:** Surgery-free
- ▶ **Saves healthy tissue:** Sub-millimeter accuracy, enabling precise delivery of high-dose radiation to the tumor while sparing nearby healthy tissue
- ▶ **Better experience:** Fewer, less-severe side-effects and faster recovery
- ▶ **Fewer treatments:** Just 1-3 treatments vs. 15-21 with conventional radiation therapy, an 80-95% reduction in sessions and anesthetic events

SRS/SRT TREATMENT STATS¹

- ▶ Pets with nasal tumors account for 16% of PetCure's treatments, more than any other tumor type
- ▶ PetCure has treated more than 600 pets with nasal tumors, with 93% of those pet families electing SRS/SRT
- ▶ Nasal tumors are also common in cats, representing 33% of PetCure's feline patients
- ▶ Median survival time for dogs with RT-treated nasal tumors:
 - ▶ Preliminary PetCure Data (unpublished): 21 months
 - ▶ SRS/SRT: 18-22 months
 - ▶ Conventional RT: 10-15 months

¹ Statistics are from PetCure Oncology's treatment database as of July 23, 2020

Withrow, SJ. Nasosinal tumors. *National Canine Cancer Foundation*. <https://wearethecure.org/learn-more-about-canine-cancer/canine-cancer-library/nasosinal-tumors/>. Accessed July 1, 2020.

Nasal cavity cancer. *Portland Veterinary Emergency and Specialty Care*. <https://www.portlandvetspecialists.com/library-archive/2016/12/21/nasal-cavity-cancer>. Published December 21, 2016. Accessed July 1, 2020.

What to expect at your PetCure Oncology visit

You have been referred to PetCure Oncology because your veterinarian suspects or has diagnosed your pet with cancer and wants you to be in the very best hands.

LET US GUIDE YOU THROUGH THE NEXT STEPS:

- ▶ Schedule an initial consult with a board-certified radiation oncologist or medical oncologist by calling the number provided to you by your veterinarian.
- ▶ Just as in human medicine, confirming the cancer diagnosis comes first. If cancer is found, we will determine its type, size, location, and stage. This may involve additional testing.
- ▶ With a clear understanding of your pet's cancer, we will present the best treatment options and help you make an informed decision.
- ▶ If you elect to move forward with treatment, your pet's first appointment will be scheduled as soon as possible.

IF STEREOTACTIC RADIATION (SRS/SRT) IS THE CHOSEN TREATMENT:

- ▶ A custom-made immobilizer will be created specifically for your pet to ensure precise and reproducible positioning.
- ▶ A treatment-planning CT scan will provide a board-certified radiation oncologist with the information necessary to create the optimal treatment plan.
- ▶ A second board-certified radiation oncologist will review the plan, and the two will work together to ensure the best achievable balance between maximum radiation exposure to the tumor and minimum exposure to the surrounding healthy tissue.
- ▶ Recheck examinations are typically done 2 weeks after completion of radiation with your pet's radiation oncologist, medical oncologist or referring veterinarian
- ▶ A follow-up CT scan 3-6 months after radiation treatment is recommended. This will reveal how well the radiation is working and will help guide future decisions about treating your pet's cancer

Note about fasting: The treatment-planning CT and treatment sessions will require your pet to be anesthetized. To ensure patient safety, please note that your pet must be fasted prior to these appointments.

POSSIBLE SIDE EFFECTS FROM SRS/SRT FOR NASAL AND SINUS TUMORS

Normal side effects:

- ▶ Nasal Discharge
- ▶ Fur loss in the area of treatment
- ▶ Irritated skin
- ▶ Mucositis (inflammation of the oral mucous)

Normal side effects that warrant a call to your vet:

- ▶ Eye changes - redness, discharge, or squinting in the sun
- ▶ Red or moist skin or Ulceration

Side effects that warrant an immediate call to your local PetCure Oncology center:

- ▶ Bleeding
- ▶ Development of bad breath
- ▶ Difficulty eating
- ▶ Coughing/ Sneezing while eating or drinking
- ▶ An acute increase in upper respiratory signs (congestion/sneezing)
- ▶ Mucousy nasal discharge

PetCure Oncology and your local veterinarian are here to help manage any side effects that may occur. If in doubt about side effects, call your local PetCure Oncology center.

If you have to take your pet to the emergency room, let us know so we can coordinate with the emergency veterinarian to ensure the best possible care.

WITH PETCURE ONCOLOGY, YOU WILL BENEFIT FROM:



Unrivaled Treatment and Delivery



Industry Leading Clinical Research



Human-Based Quality Control



Barrier-Free Collaboration



Proactive Education



Concierge-Level Service



Pioneering Innovation