



PET BRAIN TUMORS

What you need to know as a pet parent



Just like humans, pets are at risk of getting cancer. In fact, dogs and cats get many of the same types of cancers people do, including brain tumors.

Most common brain tumor types:

Meningiomas and gliomas



Pets at risk:

Older pets (5+ years); equal prevalence in both sexes

COMMON SYMPTOMS

Varies by rate of growth, location, and extent

- ▶ **Seizures:** Most common initial brain tumor sign
- ▶ **Abnormal behavior:** Increased aggression, loss of learned behavior, depression/dullness, or lethargy
- ▶ **Vision loss:** Sometimes only in one eye; signs include dilated pupil(s) and/or uncoordinated movement
- ▶ **Intake changes:** Increase or decrease in hunger or thirst
- ▶ **Neck/head pain:** Pain/sensitivity in the neck; tilted head
- ▶ **Restless:** Constant pacing/circling to one side
- ▶ **Unsteady:** Loss of balance/staggering
- ▶ **Nausea:** Vomiting

DIAGNOSING & TESTING

- ▶ **CT scan/MRI:**
To identify a brain tumor
- ▶ **Blood, urine or spinal fluid samples:**
To assess organ function and/or determine cause of seizures
- ▶ **Chest X-ray:**
To evaluate pet prior to anesthesia and check for metastases (spread of cancer) or secondary tumors

TREATMENT OPTIONS

EVERY CANCER IS DIFFERENT.

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



Surgery is often the ideal treatment for tumors if it can achieve complete removal. Talk to your veterinarian about the risks of surgery and the likelihood of leaving any cancer cells behind.



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.



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



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.

SRS/SRT TREATMENT STATS¹

- ▶ **10% of patients** receiving SRS/SRT are brain tumor patients
- ▶ PetCure Oncology-affiliated clinicians have treated **more than 290 pets** with brain or central nervous system tumors
- ▶ Of those pet patients, **99%** elected to treat with SRS/SRT
- ▶ Average survival times for dogs with SRS/SRT-treated brain tumors^{2,3}:
12-14 months for gliomas and
20-24 months for meningiomas

¹ Statistics are from PetCure Oncology's database as of October 31, 2019.

² Mariani CL, et al. Frameless stereotactic radiosurgery for the treatment of primary intracranial tumours in dogs. *Vet Comp Oncol.* 2015;13: 409-423.

³ Yoshikawa H, Mayer MN. External beam radiation therapy for canine intracranial meningioma. *Can Vet J.* 2009;50(1),97-100

What to expect at your oncology consultation



You have been referred to PetCure Oncology-affiliated center 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.
- ▶ All treatments are delivered in 1-3 sessions, depending on the patient's tumor.
- ▶ A 2-week follow-up will be scheduled. We also typically recommend follow-up appointments with CT imaging at both 3 and 9 months post-treatment and yearly thereafter.

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 BRAIN TUMORS

Normal side effects:

- ▶ Loss or discoloration of fur over the treated area
- ▶ Irritated or peeling skin, "sunburn" effect

Normal side effects that warrant a call to your vet:

- ▶ Dry or red eye
- ▶ Discharge from the eye
- ▶ Mild depression
- ▶ Red skin

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

- ▶ Worsening of neurologic status (such as blindness, seizures, or circling)
- ▶ Loss of appetite

Affiliated PetCure clinicians 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 SUPPORT FROM 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