



## What is it?

Cancer affecting the brain is common in older dogs and cats and can rarely be seen in younger animals. Tumors can arise primarily from the brain or can be caused by spread of tumors located elsewhere in the body. The most common form of primary brain tumors in dogs and cats are known as meningiomas, originating from the membrane that covers the brain (meninges). This tumor type is usually slow-growing and amenable to treatment. Other types of tumors include gliomas, choroids plexus adenomas, pituitary adenomas or adenocarcinomas and others. Most animals present to their veterinarian for seizures or behavioral changes, such as loss of learned behavior or depression. Diagnosis is determined by a complete physical, neurological examination, and/or advanced imaging. (MRI or CT).

## How is it treated?

The options for treating brain tumors include surgical removal, radiation therapy, chemotherapy and palliative treatment of the symptoms.

## What is the prognosis for a brain tumor?

It is important to note that most brain tumors are treatable, but not curable. The mean survival time for pets with untreated brain tumors is relatively short. Dogs have an excellent prognosis following complete excision of solitary cerebral meningiomas. Radiation therapy is associated with a better prognosis than surgery alone or conservative management. Brain tumors that are not treated or that are aggressive will result in progressive disease. A personalized treatment plan is important to slow the progression of cancer. Talk to your veterinarian regarding the best treatment protocol for your animal companion.

## What symptoms can present as the disease progresses?

### *Early stages:*

- Depression
- Head tilt
- Loss of balance
- Cranial nerve deficits (decreased or loss of vision)
- Seizures
- Weakness
- Strange behaviors
- Gain or loss of appetite
- Vomiting
- Weight loss

### *Late stages:*

- Persistent early stages
- Reclusive behavior
- Confusion
- Vomiting
- Pacing/circling
- Head pressing against a hard surface
- Inability to stand
- Worsening seizures
- Paralysis
- Coma

### *Crisis – Immediate veterinary assistance needed regardless of disease*

- Difficulty breathing
- Prolonged seizures
- Uncontrollable vomiting/diarrhea
- Sudden collapse
- Profuse bleeding – internal or external
- Crying/whining from pain\*

*\*It should be noted that most animals will instinctually hide their pain. Vocalization of any sort that is out of the ordinary for your pet may indicate that their pain and anxiety has become too much for them to bear. If your pet vocalizes due to pain or anxiety, please consult with your tending veterinarian immediately.*

## Common Signs of Pain

Panting, lameness, difficulty sleeping, pacing, abnormal posture, body tensing, poor grooming habits, tucked tail, dilated pupils, licking sore spot, muscle atrophy, decreased appetite, vocalizing/yowling, reclusive behavior, aggressive behavior, avoiding stairs/jumping, depressed, unable to stand.