

Dog Tips

The Silent Threat That Starts with a Seizure

Disorientation, weakness, and vision loss are some telltale signs, too. The good news is, when detected early, it's a treatable condition. Act quickly before it's too late.

Reviewed by Dr. Arielle Walton

STORY AT-A-GLANCE

- A meningioma is the most common brain tumor in dogs, often starting with subtle changes like confusion or seizures in senior pets, especially those over 7 years of age
- Though typically benign, these tumors can grow slowly and exert pressure on the brain, leading to disorientation, weakness, behavior changes, and even loss of coordination or vision
- Certain breeds, such as Collies, Golden Retrievers, and Miniature Schnauzers, may be more prone to developing meningiomas, but any dog can be affected regardless of size or background
- Diagnosis typically requires advanced imaging like MRI or CT scans, and treatment options include surgery, radiation therapy, medications, and promising new immunotherapy approaches
- With early detection and timely intervention, many dogs diagnosed with meningioma can enjoy extended, high-quality lives, making prompt veterinary consultation essential when symptoms appear

Witnessing your dog experience sudden behavioral changes, coordination issues, or seizures can be both alarming and emotionally distressing. But when you consult with a vet, and they mention the possibility of a brain tumor, specifically a meningioma, affecting your beloved animal companion, it can lead to an overwhelming mix of sensations — fear, uncertainty, and worry for your pet's well-being.

While a meningioma diagnosis can be serious, it is not without hope. With informed decisions and timely intervention, many dogs can maintain a meaningful quality of life.

What Is a Meningioma?

A meningioma is the most common form of primary brain tumor found in dogs. It accounts for approximately 50% of brain tumors in dogs and 85% of brain tumors in cats. However, a meningioma arises not from the brain tissue itself, but from the meninges — the protective membranes surrounding the brain and spinal cord. Although these tumors are generally classified as benign, their growth can exert pressure on the brain, leading to significant neurological complications. ^{2,3}

Unlike many other brain tumors, meningiomas grow slowly and do not typically spread to other organs. However, due to the limited space within the skull, any mass expansion can severely impact brain function over time. According to an article in Veterinary Partner:

"The brain and its bath of cerebrospinal fluid take up almost all the room and when a tumor begins to grow, the brain tissue is compressed. Inflammation can result leading to more swelling and soon nerves of the brain are damaged."⁴

What Causes Meningiomas and Which Dogs Are Most at Risk?

The precise cause of meningiomas remains unclear. As with many forms of tumors, there are likely multiple contributing factors. Potential influences may include age-related cellular changes, genetic predisposition, hormonal influences, and environmental exposures.

Interestingly, some canine meningiomas have been found to contain progesterone receptors, suggesting that hormone-based therapies may hold future promise in slowing tumor progression. Research in this area is ongoing.⁵

Meningiomas occur most frequently in middle-aged to senior dogs, particularly those over 7. Certain breeds also appear with a higher predisposition to this illness, particularly long-nosed breeds with narrow heads, such as Collies, Miniature Schnauzers, Golden Retrievers, Shetland Sheepdogs, and Scottish Terriers. Even so, meningiomas can affect any dog regardless of breed or size.^{6,7}

Recognizing the Symptoms of Meningioma

One of the most common symptoms in dogs is seizures; it's the most common cause of canine seizures among pets over 6 years old. Meningiomas also cause other symptoms that gradually worsen as the tumor expands.^{8,9}

- Behavior or personality changes
- Disorientation
- Visual loss (they may end up bumping into objects)
- Weakness or unsteadiness, especially in the hind limbs
- Circling or an unsteady gait
- Neck or back pain
- Head tilting or unusual postures
- Loss of learned behaviors, including house training
- Changes in appetite or responsiveness

If your dog is over 6 years old and begins showing these signs, particularly seizures or confusion, it is best to consult your integrative veterinarian immediately. Your vet will typically conduct a comprehensive physical and neurological exam to identify if there is a neurological disorder. Specific diagnostic tests may also help determine if a brain tumor is present, such as blood tests, ultrasound, X-ray, MRI, CT scan, biopsy, or spinal fluid analysis.

Treatment Options for Meningioma in Dogs

Once a diagnosis is confirmed, your vet will discuss appropriate treatment options. Several factors will be evaluated, such as the tumor's size and location, the dog's overall health, and your preferences.¹⁰

- **Surgery** This is often the most effective long-term treatment, especially if the tumor is located in a region that's surgically accessible. This treatment has a high survivability rate, and dogs typically live for many years after getting the surgery.
 - Today, new tools such as ultrasonic aspirators, which break up and remove tumor tissue more precisely, show promising results and longer survival times.
- **Radiation therapy** This is often used in cases where surgery is not feasible or if the goal is to eliminate remaining tumor cells after surgery. While noninvasive, multiple treatments are needed to slow or halt tumor growth.
- **Medications** In cases where surgery or radiation is not pursued, medications can help control symptoms and improve the dog's comfort.
- **Immunotherapy** This is a newer and developing treatment that uses the dog's immune system to target tumor cells. One form, known as autologous tumor lysate immunotherapy, uses a vaccine made from the dog's own tumor tissue after surgery. This approach has shown promising results in increasing survival times, though it is still under investigation and not widely available.

How to Support Your Pet's Healing — What to Expect

Dogs who undergo surgery or radiation may require weeks of rest and post-operative care. As a pet parent, you must support them — ensure they are fed properly, assisted while moving around, and given their correct medications on time. You'll also need to visit your vet for follow-up appointments to help monitor for recurrence or complications.

While many dogs recover remarkably well and live for many months or even years after their treatment, others experience lingering neurological effects. Regardless of the outcome, maintaining a routine and providing a stable, calm environment is beneficial.

Meningioma Is Challenging but Manageable

It's not easy to learn that your pet has this condition, but by understanding the nature of the tumor and recognizing symptoms early, you can explore all available treatment options and focus on making informed decisions that align with your values and your dog's needs to help improve their quality of life.

If you believe your dog may be exhibiting signs of a brain tumor, seek veterinary attention promptly. Early diagnosis and intervention can make a significant difference.

Sources and References

1,2,4,5,9,10 <u>Veterinary Partner, April 15, 2024</u>

3,7,8 Animal Wellness, May 5, 2025

⁶ <u>Dr. Buzby's ToeGrips, July 18, 2024</u>