

Osteosarcoma in Cats and Dogs

A brief guide on disease progression including end-of-life symptoms

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

Before your pet's condition becomes unmanageable or they are losing quality of life, it is important to begin end-of-life care discussions. Learn about [pet hospice care](#) and/or [euthanasia services](#) in your area so you are prepared for what lies ahead.

What is it?

Osteosarcoma (OSA) is the most common bone tumor in dogs and can sometimes present in cats. It usually occurs in the leg bones of larger breeds. Osteosarcoma most often arises in middle aged or elderly dogs, but can arise in a dog of any age with larger breeds tending to develop tumors at younger ages. This aggressive type of cancer can develop in any bone, but the legs account for 75-85% of affected bones. Osteosarcoma develops deep within the bone and becomes more painful as it grows outward destroying bone as it progresses. The lameness goes from intermittent to constant over 1-3 months. Obvious swelling becomes evident as the tumor grows and normal bone is replaced by cancerous bone. Cancerous bone is not as strong as normal bone and can break with minor injury. This type of broken bone is called a “pathologic fracture” and may be the finding that strongly suggests the presence of bone cancer. Pathologic fractures will not heal. Osteosarcoma is often diagnosed via radiographs (x-rays) as it usually has a distinctive pattern, but a definitive diagnosis is made by bone biopsy. CT scans and MRIs are also helpful.

How is it treated?

Treatment of OSA has one of two goals: try to cure the cancer or simply manage pain and symptoms if a cure is not possible. Managing pain and trying to slow the progression includes the use of pain medicine, radiation therapy, limb amputation, and chemotherapy. Curative intent options include combining different modes of therapy such as surgery, radiation therapy, and chemotherapy. However, no matter the combination used, many of dogs with OSA ultimately die due to the high metastatic potential of this tumor. Cats tend to do great with surgery alone.

What is the prognosis for osteosarcoma?

Unfortunately, by the time the disease reveals itself, it has more than likely already metastasized (spread) to other areas of the body such as the lungs, other bones, lymph nodes, and internal organs. If the cancer has already spread to the lungs upon diagnosis, chemotherapy may not be as effective and may only add a couple of months to the pet's life. If treatment is started before clinically detectable metastasis, it is possible to extend life by a year or more. Signs are dependent on severity of the disease and whether or not treatment options are elected. A personalized treatment plan is important to slow the progression of OSA. Talk to your veterinarian regarding the best treatment protocol for your pet.

What symptoms can present as the disease progresses?

EARLY STAGES:

- Swelling or mass at site of cancer
- Lameness and/or limb pain (with or without pathologic fracture)
- Change in appetite
- Weight loss
- Licking the affected area
- Tender to the touch
- Lethargy
- Exercise intolerance

LATE STAGES:

- Persistent early stages
- Non-weight bearing lameness
- Vomiting, and/or diarrhea
- Affected limb swelling/edema
- Ruptured skin over the site +/- infection
- Pathologic fracture
- Difficulty breathing/coughing
- Unable to stand
- Paralysis if spine involved

CRISIS:

- Immediate veterinary assistance needed regardless of the disease*
- Difficulty breathing
 - Prolonged seizures
 - Uncontrollable vomiting/diarrhea
 - Sudden collapse
 - Profuse bleeding – internal or external
 - Crying/whining from pain*

**If your pet vocalizes due to pain or anxiety, please consult with your tending veterinarian immediately.*