

# Bone Tumors in Dogs

## Oncology Service



### Michigan Veterinary Specialists<sup>sm</sup>

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#### Locations

##### **Auburn Hills**

3412 E. Walton Blvd.  
(West of Squirrel Rd.)  
(248) 371-3713

##### **Grand Rapids**

1425 Michigan St. NE  
(East of Fuller Rd.)  
(616) 284-5300

##### **Southfield**

29080 Inkster Rd.  
(North of 12 Mile Rd.)  
(248) 354-6660

## Symptoms

Bone tumors are common tumors in dogs, particularly large breed dogs. Owners often first notice limping or a painful swelling over a portion of the leg. This lameness and pain are due to the tumor weakening the bone and causing microscopic fractures.

## Diagnosis

The majority of tumors involving the bone develop from the bone itself, a disease called osteosarcoma. Other kinds of tumors can develop from the connective tissues surrounding the bone. All bone tumors look similar on x-rays, therefore, a biopsy is the only way to determine the type of tumor afflicting a particular patient.

Osteosarcoma is a type of cancer that tends to metastasize (spread to other organs) early in the course of the disease. The most common location for tumor metastasis is the lungs. Prior to any biopsy or surgery, chest x-rays are recommended to look for evidence of metastasis. Fortunately, lesions are rarely found in the lungs at the time of diagnosis. In addition, most other kinds of bone tumors do not tend to metastasize and can be cured with treatment.

## Treatment

Designing a treatment strategy for a patient with a bone tumor requires attention to two primary goals. The first goal is to achieve adequate pain control, and the second is to improve the patient's lifespan.

Dogs with bone tumors are definitely painful. They are sensitive to their tumor being touched and limp because it hurts to put weight on the leg. Multiple therapies are available to try to manage this pain such as surgery, bone stabilizing medications, palliative radiation therapy and pain relieving drugs that can be given at home. The oncologists at Michigan Veterinary Specialists will have an extensive discussion with you to determine which therapy or combination of therapies is most appropriate for your pet and your family.

Since the vast majority of dogs with osteosarcoma have microscopic (present but undetectable) tumor metastasis, surgery is not curative. Many times after surgery, the oncologist will recommend chemotherapy to improve a patient's prognosis and slow the growth of metastases. Chemotherapy can be used after surgery or in combination with radiation therapy or other pain relieving therapies.

Many people are nervous about the side effects that may occur with chemotherapy; however, the protocols administered at MVS have been developed to be effective while minimizing side effects to your pet. These protocols often utilize doses that are lower than those used in human medicine, allowing dogs and cats to maintain an excellent quality of life throughout treatment. There are many chemotherapy protocols available. The number of treatments, cost, and treatment interval depend on the protocol recommended by the oncologist.

## Other Bone Tumors

Many of the other bone tumors that occur in dogs are less malignant than osteosarcoma. The chance of their spread to other organs is dependent upon the type and grade of the tumor. This information can only be determined by performing a biopsy, and even then, a biopsy may not provide the pathologist with enough tissue to make an accurate diagnosis. With some tumors, it is possible that amputation could be curative, and with others, chemotherapy may be recommended for possible metastatic disease.

