

# Tumors of the Lower Jaw

## *Surgery Service*



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

www.michvet.com

We Can Help

### Available Services

- 24/7 Emergency & Critical Care
- Cardiology
- Computed Tomography
- Dermatology & Allergy
- Internal Medicine
- Interventional Radiology
- MRI
- Neurology
- Neurosurgery
- Oncology
- Oncologic Surgery
- Ophthalmology
- Orthopedic Surgery
- Radiology & Fluoroscopy
- Soft Tissue Surgery
- Ultrasound

### 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

#### **MVS Southfield**

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



## What are oral tumors?

Oral tumors arise from both soft tissue and bony structures within the mouth and can include less common locations such as the tongue and tonsils. These are the fourth most common type of cancer in dogs. They can be either benign and cured with surgical removal, or malignant and require more aggressive therapy including surgery, chemotherapy

and/or radiation. General categories of tumors include the epulides (fibromatous, ossifying, and acanthomatous), locally invasive malignant tumors (fibrosarcoma, soft tissue sarcoma, and squamous cell carcinoma), and malignant tumors that have a higher rate of spreading to other parts of the body (melanoma, osteosarcoma).

## Diagnosis

A CBC, complete biochemical profile, and urinalysis are performed before surgery to check internal organ health. Chest x-rays are used to identify visible spread of the cancer; however, microscopic spread of the tumor to other organs cannot be detected with this test. X-rays of the tumor site may help determine if the tumor invades into the bone. A CT scan of the jaw may also be recommended to further evaluate the extent of the tumor. Enlarged lymph nodes will be checked for spread of cancer via biopsy. Depending on the size of the mass and its location, a fine needle aspirate or incisional (wedge) biopsy may be performed under general anesthesia. Sometimes these biopsy tests do not give an accurate diagnosis, therefore only after the entire tumor is removed and studied by a pathologist can a final diagnosis be made.

## The day of surgery

Our anesthesia and surgical team will prescribe a pain management program, both during and after surgery that will keep your companion comfortable. This will include a combination of general anesthesia, injectable analgesics, oral analgesics, and anti-inflammatory medication.

## Treatment

The goal of surgery is to remove the entire tumor with curative intent. Removal of any part of the lower jawbone is termed a mandibulectomy. The amount of the jaw that is removed is dependant on the size and location of the tumor. There may be instances where one side of the jaw is completely removed if the tumor is located in the mid to back part of the jaw. Despite removing such a large portion of the jaw, the cosmetic outcome is very good in most cases.

# Tumors of the Lower Jaw Continued...

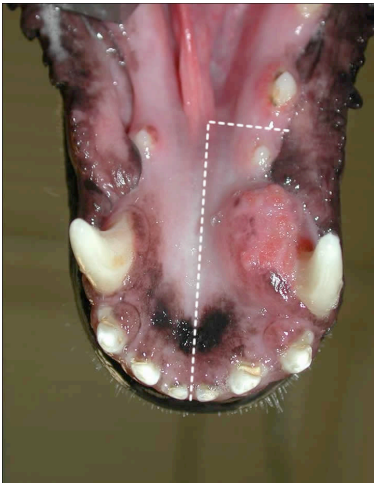
Here are examples of some cases. The dotted line denotes where the jaw is cut. If your companion has a tumor that tends to spread (metastasizes), chemotherapy will be recommended and is administered every third week for a total of five treatments. Unlike humans, most dogs do not lose their hair and usually have only mild side effects, which may include transient loss of appetite and vomiting.



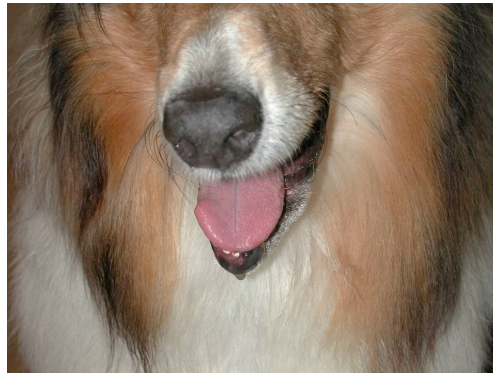
Case 1. Osteosarcoma – before surgery. Dotted line is where the jaw was transected.



Case 1. After surgery. Lower jaw is shortened, but still cosmetic and functional.



Case 2. Squamous cell carcinoma – before surgery. Dotted line denotes the portion of the jawbone that was removed.



Case 2 After surgery. Good cosmetic and functional outcome has been achieved.

Certain types of tumors cannot be cured with surgery alone, therefore radiation therapy is needed to help delay the regrowth of residual cancer cells in the mouth. Radiation is administered daily (Monday through Friday) until 18 to 21 treatments have been completed.

## Aftercare and results

After surgery, you can give your pet a prescribed pain reliever to minimize discomfort. Feeding canned dog food for the first 3 weeks will also minimize discomfort and risk of injury to the surgical site. After a meal, the mouth should be rinsed out using a syringe and either water or an antiseptic dental rinse such as chlorhexidine oral solution. Chewing toys, rough-housing with other pets and strenuous activity may cause breakdown of the surgical site, therefore is discouraged for three weeks after surgery. The face will swell after surgery and this can be minimized by applying a cold compress to the facial region, 20 minutes per session, four times daily for the first three days.

# Tumors of the Lower Jaw Continued...

The prognosis for your companion is dependant on biopsy results, location, and size of the tumor. In general, tumors located on the front part of the jaw have a better prognosis. The oncologist will discuss the prognosis for your pet and the need for additional treatments, after the final biopsy results are available.

## Assessment and recommendations

Patient: \_\_\_\_\_ Date: \_\_\_\_\_

### Treatment

- Additional diagnostic tests are recommended prior to surgery
- Surgery is recommended to remove the tumor by a surgeon at MVS

### The following has been prescribed

- No medications or special diet are necessary at this time
- Diet: \_\_\_\_\_
- Avoid chew toys or other hard treats that may cause the tumor to bleed
- Antibiotic: \_\_\_\_\_
- Other medication: \_\_\_\_\_

### Exercise:

- Unlimited
- Confine your pet to the house other than very short leash walks necessary for bowel movements and urination
- Restrict exercise to leash walks 10 minutes twice daily

### Preparation for surgery

- Start fasting your companion at midnight before the surgery; water should not be withheld
- Pepcid AC 10 mg tablets: give \_\_\_\_\_ tablets with water (use a syringe if needed) at 6 AM on the day of surgery

*Composed by Daniel A. Degner, DVM, DACVS  
Edited by Ned F. Kuehn, DVM, MS, DACVIM*