



Oral Tumors in Dogs

Is that lump you're seeing in your dog's mouth normal? Or is it something to be concerned about? The easiest way to know for sure is to have it evaluated by a veterinarian. When you take your pet to see a Board-Certified Veterinary Dentist, then you can be sure they are experienced in looking at and treating all different kinds of "lumps" in the mouth of a dog.

A tumor is an abnormal growth or enlargement. There are many kinds of tumors that can occur in a dog's mouth. Sometimes inflammation and infection will cause swelling and redness of the oral tissues that could mimic a tumor. Periodontal disease can also be a cause of gingival overgrowth, which may look like excessive gum tissue growing up around one or many teeth.



This dog has an example of a non-cancerous growth- **Gingival Enlargement** (or gingival hyperplasia). This is the result of periodontal disease, and can be treated by local removal and proper preventative dental care.

There are also many other types of growths that occur in the mouths of dogs that can be benign (non-cancerous) or malignant (cancerous). These are often difficult to tell apart without diagnostic tests to tell us what the growth looks like microscopically and on x-rays. When a mass shows rapid growth, we become more concerned that the growth may be malignant. This may cause teeth to move out of their normal location, signs of pain, redness, swelling, bleeding or ulceration. Signs of pain may include pawing at the face, chewing on the opposite side of the mouth the mass, rubbing the face excessively, drooling, and jaw chattering.

In order to determine the best way to treat the tumor growing in your pet's mouth, we will need to diagnose what kind of tumor it is. To do this we will perform dental radiographs and a biopsy of the tissue. This allows us to identify the cause of the growth, and how far it extends into the underlying tissues. In some cases we can take the whole tumor when we take our biopsy. This is called an excisional biopsy. However, most of the time it is advisable to take an incisional biopsy, where we take a small piece of the tumor, to be able to plan exactly what type of treatment will be best for your pet. Biopsy samples are submitted to a pathologist who is an expert in diagnosing different types of tumors, and usually report back to us their results within 1-2 weeks.

Many of the tumors we see in dogs tend to be benign- these include odontogenic tumors that arise from tooth-associated tissues, such as odontomas and fibromas, as well as other types of tumors such as

granulomas, osteomas and others. Some of the tumors we see are malignant, the most common of which are Melanoma, Squamous Cell Carcinoma, Fibrosarcoma and Acanthomatous Ameloblastoma. These tumors tend to invade the underlying jawbone, can grow rapidly, and sometimes can spread to other body organs such as the lymph nodes or lungs. Unfortunately for us, many of these tumors, benign and malignant, look the same on the outside, and we can only diagnose those by getting a biopsy.



This dog has a growth at the lower incisors – It was diagnosed as a **benign** tumor called a Peripheral Odontogenic Fibroma.

After we have diagnosed what type of tumor is present based on the results of the biopsy we may recommend performing additional diagnostic tests, such as chest x-rays, abdominal x-rays, and lymph node biopsy, in order to determine if there has been any spread of cancer to these areas and to make sure your pet is healthy to undergo certain forms of treatment.



This dog has a growth around his mandibular 1st molar tooth- This was diagnosed as a **malignant** squamous cell carcinoma- Very difficult to tell apart based on appearances alone!

Fortunately, many types of oral tumors in dogs can be treated and cured by completely removing the oral tumor. Removing a tumor in the mouth often will involve removing a portion of the jawbone underlying the tumor, as this may be the only way to completely remove the cancerous growth. In these patients, there is typically a short adjustment period after surgery, but many patients eat the same night as the procedure, and are happy and healthy after their oral surgery site has healed, with minimal side effects apart from mild cosmetic effects.

Each pet is different, and each oral tumor is different. This means that we will be working closely with you to identify the best ways to give your pet the best quality of life that we can. This may mean curing them of their disease through surgery, or helping to keep them as comfortable as possible for the time

they have left with us, or some variation in between. Our goal at Sacramento Veterinary Dental Services is to keep your pet happy and comfortable by offering treatment options based on your pet's individual needs. Below you will find more information about select types of common oral cancers.

Oral Malignant Melanoma (OMM)

This type of cancer arises from the pigmented cells located in the soft tissues that line the tongue, cheeks, and jaws in the oral cavity of dogs and is one of the most common types of oral tumors. Certain breeds are predisposed to this type of cancer, including Golden retrievers, Dachshunds, Scottish terriers and poodles, though any breed can get this type of cancer. Most of the time, they are pigmented (and look black or dark brown like the one in this picture), though a small percentage may be non-pigmented (and look white or pink). Unfortunately, this type of cancer has a high rate of metastasis (spread to other areas of the body) to the lymph nodes and lungs. If your dog is diagnosed with this type of cancer, we recommend having chest x-rays and lymph node biopsy performed prior to surgery to make sure that it has not spread. Surgery to remove the primary tumor and an appropriately wide margin of normal tissue can result in a good long-term outcome for of this type of cancer. Alternative therapy can include radiation therapy and chemotherapy. How well your dog will do after being diagnosed with OMM depends greatly on how big the tumor is when it is diagnosed, as well as whether it has already spread.



Squamous Cell Carcinoma (SCC)

This is one of the most common types of oral cancer in both dogs and cats (and people) and arises from the tissues that line the surface of the mouth and throat. Often times these tumors are red (inflamed) and ulcerated and can cause significant oral pain. They also readily invade the underlying soft tissue and jaw bone. The prognosis is typically good to excellent when this disease is limited to the oral cavity (around the teeth, the cheeks or the tongue). However, if it is arising from the tonsils, the cancer tends to behave much more aggressively with a high rate of distant spread. Treatment for this type of cancer is surgical removal of the main tumor, which often involves removing a portion of the underlying bone as well. If we can achieve complete removal of the local tumor, then we can cure this type of cancer. However, if it has spread elsewhere, or is too large, we may need to include other therapies, including radiation therapy or chemotherapy, to treat your pet.



Fibrosarcoma (FSA)

Fibrosarcomas are a type of cancer that arises from the connective tissue cells that lie underneath the soft tissues lining the mouth. These tumors tend to grow by sending out tendrils of cancer cells into the surrounding tissue. This means that in order to stop this cancer from growing, aggressive surgery through taking a wide margin of normal-looking tissue is necessary. These tumors fortunately rarely metastasize (spread) and often look smooth and firm. Since the tumors are slow to spread, a good prognosis can be achieved if we can remove the entire tumor, including all the tendrils of growth.

Histologically low-grade, biologically high-grade FSA is an important variant of the typical fibrosarcoma. This tumor is an extremely aggressive form of FSA that may look benign on biopsy, as did the tumor in this picture. Clinically, we see these tumors growing so rapidly that sometimes they have invaded so much of the normal tissue as to make surgery impossible. Luckily for this dog pictured, we were still able to perform surgery despite the tumor's rapid growth. If we



catch a “Low-High FSA” early on, we can have a good prognosis if surgery is possible. Unfortunately, radiation therapy and chemotherapy tend to be unrewarding in treating this form of cancer.

Osteosarcoma (OSA)

Osteosarcoma is a type of cancer that arises from bone. This can be from any bone in the body, including the skull, the legs, or the spine. OSAs that start in the oral cavity tend to have a better prognosis than those that arise in the legs of dogs. However, these can still be very aggressive cancers, and spread to the lungs and other bones in the body. Having chest x-rays and lymph node biopsy performed prior to treatment for this disease is very important due to its higher rate of spread. The mainstay of treatment for OSA is to perform surgery to remove the tumor – which necessarily involves removing the underlying bone as well. Sometimes radiation therapy can also be helpful in treating this type of cancer.

Acanthomatous Ameloblastoma (CAA)

Canine acanthomatous ameloblastoma is an odontogenic tumor. That means that it arises from the structures that support the teeth. This particular type of odontogenic tumor comes from epithelial cells (cells that line the surface of a structure. These used to be known as an “acanthomatous epulis”. This type of tumor is locally aggressive, and invades the underlying bone supporting the teeth. Luckily however, these tumors do not tend to spread. With surgery to completely remove the tumor (including the underlying bone that is involved) this type of cancer can be cured.



Peripheral Odontogenic Fibroma (POF) Formerly known as ossifying fibromatous epulis or fibromatous epulis, POFs are benign odontogenic tumors- this means they arise from the structures that support the teeth. These tend to be slow-growing masses that do not largely invade the underlying bone, which means that local removal is typically curative. Occasionally these tumors do require more aggressive surgery if they come back or grow rapidly.

Odontoma

An odontoma is a benign, odontogenic (tooth-derived) tumor that can be classified as “compound” or “complex” depending on the appearance of the tumor. These are typically found in young dogs (<2years old) and can appear as a slow-growing swelling on the upper or lower jaw, in association with the teeth. Treatment by complete surgical removal is typically effective in curing this disease.

Papillomas

Papillomas are wart-like growths that typically affect young dogs, and are caused by a virus that most dogs become immune to by the time they become adults. Many times, these go away on their own and do not need treatment. Occasionally these lesions can spread through the mouth, interfering with normal chewing and swallowing, and do require some treatment either through surgical or laser removal of these lesions.

