

Tumors in dogs are very common especially in Bostons. They are either benign tumors (non-cancerous) or malignant (cancer).

Mast cells are cells that reside in the connective tissues, especially those vessels and nerves that are closest to the external surfaces (image 1).



If you notice a lump on your dog the first step is to take them to the vet to evaluate the lump, the first thing they will likely do is to take an aspirate (poke a small needle into the lump) to collect cells they can look at under a microscope. This will allow them to determine if the lump has signs of being cancerous.

So your veterinarian comes into the room and tells you the small lump they aspirated from your beloved dog looks cancerous and is potentially a malignant tumor. Your heart is in your throat, you ask him for a prognosis. The response will depend on a variety of things and they often will want to do more tests to determine the best route.

Now that results are in you need to determine next steps:

1. **If the tumor is malignant** (cancer) it will need to be removed, if possible (sometimes the location of the tumor may prevent this). It is best to not wait for the tumor to grow. For cancer tumors it is critical that surrounding tissue (image 2) is also removed to ensure that the whole tumor has been removed otherwise the chances of the tumor returning is high.

a. A surgical tissue biopsy will likely be necessary for definitive identification of both the grade of the cells occupying the mass, the stage the disease, and if the vet was able to remove all of the tumor (this is referred to as margins. You want 'clean margins'.)

b. If the tumor was NOT completely removed (or if the tumor is not a candidate for surgery) radiation therapy can be considered to reduce the tumor to a microscopic volume and/or chemotherapy to kill any remaining cells.

c. For Bostons we find most malignant tumors are isolated. Meaning they do not spread.

d. It is important to note that not all cancers are the same, different types of cancers react differently to treatment and thus you and your vet will have to determine a course of treatment that best fits the cancer.

2. **Benign tumors** (fat-filled) may need to be removed due to their location or size. Benign tumors are very common in older dogs. Should the tumor be small and not disruptive to your pet's daily routine it may not be warranted to put them under for surgery.

a. If your pet is going under for another procedure removing fatty tumors can be considered

Now your dog is out of surgery after having the malignant tumor removed and to your surprise, he says the surgery was successful but you need to keep an eye out for new growths. You are flabbergasted that a malignant tumor can be cured with surgery alone. How is that possible when everything you have ever heard about malignant cancer usually is accompanied by a solemn death knell? While some cancers spread fast, not all cancers are a death sentence. If they are able to remove the cancer with good margins it is possible for your dog to live a completely normal life after the surgery.

When you see a bump on your dog it is best to see your vet, the best outcome for your dog comes from an early diagnosis and treatment. Do not feel bad if you want to also get a second opinion based on the first diagnosis. Ignoring something can lead to discomfort, pain, amputation and even death.

NOTE: Mammary tumors are the most common form of cancer in 'unsprayed' females with over half being malignant tumors. Spaying a female dog before her first heat cycle precludes any chance of mammary tumors developing and each heat cycle she goes through increases the risk of developing this invasive form of cancer. Symptoms include small lumps in the mammary tissue and prognosis is dependent on how quickly treatment is administered.