

## WHAT IS OSTEOSARCOMA?

Osteosarcoma is the most common bone tumor of the dog, affecting larger breeds more commonly than smaller breeds. It usually arises in middle aged or elderly dogs but can arise in younger dogs, typically around 18-24 months as well as older dogs. Osteosarcoma most commonly affects the long bones of the legs but can affect any bone as well.

## HOW IS OSTEOSARCOMA DIAGNOSED?

**Radiographs:** Radiographs are the first step in evaluation of a dog with a lameness. Osteosarcoma lesions have some characteristic findings that clue us into the diagnosis.

**Needle Aspirate or Biopsy:** A needle can be used to aspirate a small portion of the tumor or for a biopsy, a tiny section of bone can be removed for laboratory analysis. Sometimes a bone tumor is surrounded by an area of bone inflammation and it may be difficult to get a diagnostic sample and several samples must be taken.

## HOW DO WE TREAT THE PAIN?

Treating the pain successfully will allow a dog to live comfortably. There are three main options for pain control: amputation of the limb, radiation therapy for pain control, and medical management (drugs) of pain. Dogs with osteosarcoma are usually euthanized due to the pain in the affected bone.

## HOW DO WE TREAT THE CANCER?

Osteosarcoma is unfortunately a fast spreading tumor. By the time the tumor is found in the limb, it is considered to have a high likelihood to have already spread. Osteosarcoma commonly spreads to the lung in a malignant process called metastasis. Prognosis is substantially worse if the tumor spread is actually visible on chest radiographs, so if chemotherapy is being contemplated, it is important to have chest radiographs taken. We typically recommend a combination of amputation or radiation plus chemotherapy. At VSNT, we also offer a brand-new, cutting edge vaccine for canine osteosarcoma along with other drugs that we can currently explore in clinical trials for osteosarcoma.

## HOW IS CHEMOTHERAPY GIVEN?

Most chemotherapy drugs are given by intravenous (IV) injection. Typically, an IV catheter will be placed in one of your dog's veins to allow us to administer chemotherapy safely. A small patch of hair will be shaved over your dog's leg where the catheter is placed.

## WILL CHEMOTHERAPY MAKE MY DOG SICK?

Most dogs tolerate chemotherapy well, much better than humans typically do. In general, fewer than 5% of dogs treated with chemotherapy will experience side effects that need to be hospitalized.

## WHAT CAN YOU TELL ME ABOUT THE OSTEOSARCOMA VACCINE?

The Canine Osteosarcoma Vaccine is a brand new, cutting edge vaccine offered for canine osteosarcoma. This is an autologous vaccine, made from the tumor when it is removed surgically. There are special handling instructions for how the tumor must be prepared and shipped for vaccine preparation. Due to this, surgery must be done with our sister surgery practice located within the same building as VSNT, Dallas Veterinary Surgical Center, so that we can immediately collect the tumor once removed and prepare it for shipping. There are multiple follow up visits for various treatments required over an 8-week time frame for this treatment series.