

What is osteosarcoma?

Osteosarcoma is the most common bone tumor found in dogs. Approximately 8,000 dogs are diagnosed with osteosarcoma yearly. Large to giant breed dogs are more prone to this type of cancer. Approximately 75% of osteosarcomas are found in the limbs of dogs.

Why is bone cancer painful?

Osteosarcoma starts deep within the bone and grows outward. The area around the tumor becomes painful as the bone is destroyed. Bisphosphonate drugs reduce this breakdown of bone material. The result is pain relief and strengthening of the bone.

What are bisphosphonates?

Bisphosphonates are a new class of drug used to treat bone cancer in dogs and humans. Their ability to reduce pain and prevent bone loss makes them an ideal treatment for patients with osteosarcoma when amputation is not an option. They are not meant to be a cure, but are used to decrease the pain and strengthen bone that has been weakened by cancer.

How do bisphosphonates work?

Bisphosphonates reduce bone destruction. Besides helping to control pain, they increase bone mass thereby decreasing likelihood of fractures. They can also prevent or delay the spread of cancer. Bisphosphonate drugs have also been shown to directly kill tumor cells.

How are bisphosphonates administered?

Bisphosphonates are usually given as an intravenous drip, lasting half an hour to two hours, depending on the bisphosphonate used. Complete blood count, blood chemistry analysis and urine analysis will be performed before treatment to ensure safety. Bisphosphonates are usually administered every 3 to 4 weeks.



What are the side effects of bisphosphonates?

These drugs are generally well tolerated. Side effects are rare and can include:

- 🐾 Allergic Reactions
- 🐾 Kidney damage
- 🐾 Fever
- 🐾 Muscle Pain
- 🐾 Nausea
- 🐾 Slight stomach or intestinal upset

Bisphosphonates at Veterinary Cancer Care, P.C.

We offer Pamidronate, the most commonly used bisphosphonate in veterinary medicine.

Zoledronate is also available for a limited time to qualified patients as part of a clinical trial.

Bisphosphonates and osteosarcoma treatment