

Chemotherapy

What is Chemotherapy?

Chemotherapy is the use of chemicals or drugs in the treatment of cancer. Chemotherapy is used to treat many cancers in cats and dogs. It is often used alone or in combination with the surgery and/or radiation therapy. Chemotherapy works by killing or slowing the growth of cancer cells in the body.

Why is chemotherapy used in veterinary medicine?

The primary goal for initiating chemotherapy in dogs and cats is to maintain the highest possible quality of life for the longest period of time. While cures can sometimes be achieved, the quality of life during and after treatment is of paramount importance.

What side effects does chemotherapy cause?

Undesirable side effects are usually dose dependent. As compared to human medicine, in veterinary medicine we use lower dosages of chemotherapy in order to have fewer side effects and maximize the quality of a pet's life while undergoing cancer treatment. While 10 to 30 percent of animals may still experience side effects, they are most typically mild and controlled with at-home medical therapy. The primary side effects are *gastrointestinal* and *bone marrow-associated*. Hair/whisker loss or thinning is seen with certain breeds, but this is typically not severe or significant. There are also certain idiosyncratic reactions that specific drugs can cause. Finally, certain chemotherapy drugs can act as *vesicants*. On very rare occasions, an animal may need to be hospitalized because of side effects. Depending on the type and severity of side effects experienced, alterations in the chemotherapy protocol are sometimes made.

- *Gastrointestinal* side effects include nausea, vomiting, decreased appetite, and diarrhea
- *Bone marrow-associated* side effects include low white cell count (*leukopenia*), low platelet count (*thrombocytopenia*), and low red cell count (*anemia*)
- Because white blood cells help to fight infection, *Leukopenia* can increase risk to infection and fever; antibiotics are used to reduce this risk
- *Doxorubicin* is an example of a drug that can cause other side effects; in dogs, this drug can be toxic to the heart and in cats it can be toxic to the kidneys

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- *Vesicants* are substances that are harmful to the tissues if they accidentally get outside the vein (perivascular); these reactions can be mild or severe

How long is chemotherapy given?

Most chemotherapy drugs are given as a simple quick injection into a vein. Other chemotherapy drugs require intravenous catheters, are given as pills, or as injections under the skin.

How long will my Chemotherapy visit be?

After your initial visit and your pet has an established chemotherapy protocol, most chemotherapy appointments are 60-90 minutes. During these visits your pet will be examined, the white blood cell count checked and the chemotherapy drug given. Certain drugs require a catheter and a longer visit time (part or all of the day). While many clients choose to wait while chemotherapy is being given to their pet, you can drop off your pet for all or part of the day. If your animal is sick, the visit time may be longer. It is important that you call prior to your visit if your animal is sick.

What is the duration of a chemotherapy protocol?

Chemotherapy protocols typically last 3-6 months. But durations vary widely depending on the cancer being treated. The recommended treatment protocol will be discussed. In some cases, alternate chemotherapy protocols may also be available.

What is the cost of chemotherapy?

Chemotherapy drug costs vary widely depending on the size of the animal being treated, the cancer present, and the protocol chosen. We will discuss estimated costs of the recommended chemotherapy protocol with you at the time of your initial visit.

What sort of monitoring is recommended with chemotherapy?

Recommendations for follow-up vary depending on the drugs being used and the side effects they cause. Prior to giving chemotherapy, a white blood cell count is typically checked. Specific monitoring recommendations will be made on an individual basis.

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What do I do if my pet is experiencing side effects from chemotherapy?

If your pet experiences side effects from chemotherapy you should call our office. Because serious infections can develop, we ask that you check your pet's temperature with a rectal thermometer prior to calling. Temperatures above 103 can be an indication of a life-threatening infection.

