

Broadway Pet Hospital

CHEMOTHERAPY INFORMATION

What is chemotherapy?

Chemotherapy drugs are compounds that are toxic to cancer cells. Chemotherapy drugs may be given intravenous (IV) , subcutaneous (under the skin) injection or orally.

How does chemotherapy work?

Cancer cells generally multiply very rapidly. Most chemotherapy drugs work by damaging the ability of these rapidly growing cells to divide, eventually killing them.

What are the benefits of chemotherapy?

Chemotherapy is used by veterinarians to treat cancer in four basic but different ways:

- Chemotherapy is the most effective single treatment for some types of cancer, offering the best opportunity for remission while at the same time preserving a good quality of life. A good example of this type of cancer is lymphoma, also called lymphosarcoma.
- Chemotherapy is often recommended after surgical removal of a malignant cancer. The purpose of chemotherapy in this setting is not only to try to prevent recurrence of the cancer at the original site, but also to try to prevent spread (or metastasis). An example of a cancer in which chemotherapy is routinely used in this way is canine or feline malignant breast cancer.
- Chemotherapy may be administered to some animals while they are also receiving radiation therapy for the treatment of their cancers. Some chemotherapy drugs are effective in this situation, because they increase the ability of the radiation to kill the cancer cells.
- Occasionally, chemotherapy will be used alone for the treatment of cancers that are not amenable to surgical removal or radiation therapy, or have already metastasized. In most of these cases, the goal of treatment will not be to cure the cancer, but rather to improve the patient's quality of life temporarily by reducing pressure, bleeding, or pain.

Are there risks or side effects involved?

There are some risks involved with any type of treatment for cancer. Some normal cells will be injured and killed by the chemotherapy drugs. Some side effects may be apparent because of these normal cells being killed. Usually these side effects are outweighed by the benefits of killing the cancer cells.

Dogs and cats generally tolerate chemotherapy much better than human patients do. The two side effects encountered most commonly in canine and feline patients receiving chemotherapy are toxicity to the gastrointestinal tract and to the bone marrow. Normal cells in both of these areas divide very rapidly, so they are more susceptible to the toxic effects of the chemotherapy.

When the lining cells of the gastrointestinal tract are affected, the result may be decreased appetite, nausea, vomiting, or diarrhea. Most patients will experience this side effect once or twice during their course of chemotherapy treatment, but the symptoms are usually mild and can be overcome with supportive care at home.

When the cells of the bone marrow are affected, the result may be more serious. The progenitor cells, which produce the white blood cells necessary to fight infection, are found here. If these progenitor cells are damaged, the patient's white blood cell count may drop low enough to result in an increased susceptibility to infection. Even bacteria to which a patient would normally be resistant can cause serious illness in this situation. White blood cell counts of all canine and feline chemotherapy patients are monitored carefully, but rarely a cat or dog receiving chemotherapy will develop a life-threatening systemic infection. This is why it is important to closely adhere to our recommendations for repeat blood tests. The only way to successfully treat these infections is to admit the patient to the hospital and administer intravenous fluids and antibiotics.

Hair loss in cats and dogs receiving chemotherapy is usually very minor, with some notable breed exceptions. If you own a poodle, old English sheepdog, schnauzer, puli, lhasa apso, shih tzu or maltese, you should expect that your pet would lose a significant amount of hair during the initial stages of chemotherapy. However, the hair that is lost will grow back after your dog's course of chemotherapy has been completed, or once treatments are being administered less frequently. Cats usually do not lose any hair, although many will lose their whiskers.

Some chemotherapy drugs can be extremely irritating to the subcutaneous tissues if they are able to leak outside the vein during injection. Severe inflammation, ulceration, and swelling can occasionally be seen. However, this complication occurs infrequently, because all chemotherapy drugs are carefully administered through catheters. Even though this complication is rare, we cannot completely prevent it from occurring.

Is chemotherapy expensive?

Treatment of cancer with chemotherapy can be costly. It involves the use of the same drugs used to treat human cancer patients, and many of these drugs are expensive. The exact cost of chemotherapy varies with the size of the animal, the number of treatments and the drugs being administered. The projected cost of your pet's individualized treatment will be discussed in detail with you.

How long will my pet receive chemotherapy?

The length of the particular course of chemotherapy protocol will vary depending on the disease being treated. The most common cancer treated with chemotherapy is lymphoma. Although chemotherapy for this disease is often very successful, owners of cats and dogs with this type of cancer should realistically expect that their pets will need some form of chemotherapy for the rest of their lives. The course of treatment for other types of cancer is usually much shorter, generally 12 to 15 weeks. The specific length of your pet's individual course of treatment will be discussed in detail with you.

What happens after treatment?

It is important for your veterinarian to examine your pet periodically after chemotherapy treatment has been discontinued, usually at 1 to 2 month intervals. This will allow potential problems, such as recurrence of the cancer, to be detected before they become too advanced. Treatment options will be more numerous, and have a greater potential for success when problems are identified early.

Finally, it is important for the owners of dogs and cats receiving chemotherapy to realize that cancers we treat are rarely cured. Almost all of our patients ultimately have recurrence of their cancers, and their owners will eventually have to make the difficult decision to euthanize. However, it is vital to understand that most cats and dogs receiving chemotherapy have an excellent quality of life both during and after treatment. It is often possible to provide many additional months or sometimes even years of a happy life with chemotherapy. The vast majority of owners tell us that they have no regrets about their decision to pursue chemotherapy for their pet and they would pursue treatment if forced to make the decision again.