

Feeding a Pet during Chemotherapy: An Owner's Guide

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A little about me: I am a PhD candidate in animal behavior and work with and train animals ranging from dogs to chimpanzees. Before returning to graduate school, I worked in the field of applied behavior analysis treating children with pediatric feeding disorders, including severe food aversions. I am also a doggie-mom to two wonderful dogs, one of whom is currently battling nasal lymphoma. So, I am drawing from all of these experiences as I write this, in the hopes of helping those of you whose beloved companions are undergoing chemotherapy.

Eating as a behavior: Eating is a behavior - just like retrieving a ball or barking at the UPS man. Sometimes, especially when our pets are sick, we come to think of it as simply a biological process (which it certainly is) or a medical issue (which it is as well). We forget the behavioral aspect of eating though. As a behavior, it is subject to reinforcement and punishment and other behavioral principles. We eat more when we are around certain stimuli (such as the Thanksgiving table with our family), and we eat less when in other contexts (say, a first date). If you've had a recent stomach virus, you probably remember the last thing you ate before it struck...and you probably avoided it for several days or weeks afterward. Our pets are the same way, and this is something to keep in mind during chemotherapy.

Food aversion: Whereas learning most things involves many tries or "trials," food aversion training (or learning to avoid or "dislike" certain foods) can happen very quickly (so called "one-trial learning"). This helps species survive. If you are in the wild and eat a poisonous berry that makes you sick, it is best to avoid those berries in the future. If your pet eats his normal dinner and then experiences nausea or stomach pain from the chemotherapy or from the cancer itself, he may quickly develop an aversion to the taste of his regular dinner. He may also begin to associate his nausea or pain with the bowl he eats from, the room he eats in, etc. So, what should you do?

1. Change your pet's diet. Work with your veterinarian to determine appropriate foods and diets for your pet. If your pet refuses one food, offer a different one.
2. Vary the stimulus properties of the food. This includes things like:
 - a. Feed your pet in a different dish – use a paper plate or a different bowl. Hand-feeding or having your pet lick items off of a spoon might work as well.
 - b. Feed your pet in a different room.
 - c. Change the texture of your pet's food. Puree their food (even if it is already canned) to a very smooth texture...or go the opposite route and give table-textured foods or hard biscuits.

- d. Change the temperature of your pet's food. Sometimes the smell of warm food will entice your pet. However, if your pet is nauseated, he may prefer cold food.
- e. Have someone else feed your pet...or, if desperate, take your pet to a friend's house to have dinner

Medications for nausea/appetite: Your veterinarian may prescribe medications to help control nausea or increase appetite in your pet during chemotherapy. These medications can be life savers, and I highly suggest that you discuss having an "emergency kit" of these medications for home use. However, keep the interaction between these medications and food aversion development in mind. If your pet is actively nauseous, giving an appetite stimulant may entice him to try to eat. However, if the food doesn't stay down or results in further nausea, you may just be "burning" foods that you slaved over to prepare (or spent a fortune on). It can be a tough balance to achieve, because I know that you want to get calories in your pet, but try not to push food on an actively nauseous pet. It will likely only increase food aversion. You may want to stick with the current diet until the nausea is under control and then change diets (and perhaps consider the appetite stimulant at that time to help encourage your pet to try the new foods).

Delivering medications: Your cancer patient has likely been prescribed medications that need to be given at home. In addition, you may have herbs or supplements that you and your veterinarian have chosen to balance your pet's diet or improve his overall health. Medications can be hard enough to give a healthy pet. Add in nausea and loss of appetite, and it can be a real problem. I would talk with your veterinarian about which medications/supplements are absolutely essential on a daily basis. Then, I would make a hierarchy of the importance of the other supplements or medications. On good day, when your pet is eating well, you can go through the whole list. However, on the worst days, it will be good to know which pills may need to be forced down and which you can skip. For medications or supplements that are sprinkled or added directly into food, I would suggest putting them in some sort of a special treat rather than adding them to your pet's main diet...especially if the medication has a distinct flavor. I use things like almond butter, pureed canned chicken, liverwurst, baby food, etc. That way, if the taste of the supplements "puts him off," you'll just have to find a new treat – not a whole new diet. For tablets that you are hiding in Pill Pockets or pieces of cheese or chicken, my suggestion is to give "dummy" treats before and after the tablet. So, a plain piece of cheese or two, then the one containing the tablet, then a quick chaser of a plain piece of cheese again. (This works off of the principle of behavioral momentum, but that isn't important...).

Calories: Weight loss can result in poorer outcomes for pets battling cancer. So, it is important to try your best to keep your pet at a healthy weight. Ask your veterinarian approximately how many calories your pet needs to maintain his weight. Then, keep a log of what your pet eats in a given day. If you are using commercial diets, you will likely have to go to the manufacturer's website or call the manufacturer to determine calories (they are often not listed on the bag or can). For homemade foods, you can use online calorie counters or look at the packaging. I

wouldn't suggest doing a detailed log each day – you may go insane. However, I would use this as a periodic check to see how close you are to your pet's caloric goal. It will help you know if you are falling far short or may reassure you that you are doing better than you think you are (you'd be surprised how quickly some cheese and bacon will get you to your caloric goal).

Hydration: There may be some days when your pet simply will not eat. I know I panicked the first time that happened, so I won't tell you not to. It really is a marathon though, so try your best to look at the big picture. If he doesn't eat today, he will be ok. However, if he isn't drinking enough, that will become an emergency very quickly...and dehydration will only make your pet feel worse. Talk to your veterinarian about learning how to administer subcutaneous fluids at home. Also have her teach you how to check for dehydration. It was very reassuring to me to be able to give my dog the fluids that he needed, and it often helped his appetite as well.

Reinforcement: I believe that pets are fairly honest when it comes to eating. Barring an aversion to that food or the fact that they currently aren't feeling well, they will generally eat most anything edible. I also do not think that pets are manipulative. I wouldn't worry that, if you give your pet steak, they will "hold out" for steak and refuse to ever eat kibble again. However, you can accidentally reinforce food refusal behavior. If refusing one food results in the immediate presentation of "something better," why not make a habit of refusing the food in front of you to see what comes next? I got around this by offering several things simultaneously and then providing more of whatever my dog chose. This gives the pet choice (which we all like to have) without setting up a behavior chain of food refusal. In fact, it helps to reinforce his eating behavior. Another thing to keep in mind is how much attention you give your pet when he is refusing food versus when he is eating well. Remember to praise your pet when he is eating well. Don't make a big fuss over him when he refuses food (as much as you want to). Be matter-of-fact about it and offer something else an hour or so later.

Timing: If your pet isn't eating well, try offering food several times a day. My dog went through a period where he ate best at midnight. He'd wake up to go outside, but then he'd feel like eating. So, that is when we ate. Also, if your pet refuses a food for breakfast, don't rule it out for dinner. The next meal may be completely different.

A safe place: If you are nauseous, the last thing that you want is people poking food in your face. At some point, I realized that I was traumatizing my dog by following him around shoving food in his face. I decided to give him a "safe place." He has a cool mat that he loves to lie on. When he was in his spot, I never offered him any food or pilled him. I tried to only offer food when he came in the kitchen, but I found myself breaking that rule on his bad days and would offer him food in other rooms. However, I do think it is important that your pet has a "home base" where he won't be pilled and food won't be shoved in his face.

My own experience: I started out with a balanced (by my veterinarian), healthy, homemade cancer diet. My veterinarian helped me determine the amount my dog would need to put a little weight on him (I kept him slim for agility and general health). Everything went well for a couple weeks, and I was patting myself on the back for being such a good dog owner. Hopefully, you and your pet will stay in this happy place for a long time...some animals take chemotherapy like it is water. My dog did not. The loss of appetite and nausea came after about two weeks and lasted (in varying degrees) for the next 7 months of chemotherapy. At one point, I figured out that I was spending 4 hours a day cooking for and feeding my dog (and, yes, this was in addition to being a full time graduate student and working two part-time jobs). I learned to have a large variety of foods on ready. Although no two days were the same, I'd say that a typical meal would start with some pills hidden in almond butter or pill pockets. Then, I'd put down a plate with 4 – 5 things on it. Typical items might be steak, chicken thighs, pork chops, hot dogs, goat cheese, broccoli, asparagus, cold pasta, canned food, dry food, etc. I'd figure out what he was eating at that meal and then offer more of that item. If he wasn't eating much of anything, his go-to foods included bacon, goat cheese, and chicken and rice baby food. I probably tried 10 types of baby food before I found one he would eat. Freeze-dried chicken or freeze-dried beef liver were two other go-to foods when nothing else would work. I had one day when all he ate was broccoli and another when all he ate was watermelon and some tortilla chips from Moe's. His special treat was baby food rice cereal with whole goat milk (that was good for getting calories in him too). While I still tried to prioritize high protein/moderate fat foods and get in as many supplements in as I could, there were many days when I would offer him anything he would eat (that wasn't toxic or that he wasn't allergic to). I'd wonder the aisles at the grocery store...Spaghetti O's? Sure! Spam? Worth a try! The dog that I taught not to beg was suddenly eating French fries beside me on the couch. At our lowest, we were seriously considering placing a feeding tube. In the end though, my dog actually ended up gaining weight throughout his chemotherapy treatment.

Having a pet with cancer really is an emotional roller coaster. Be kind to yourself. I hope my experiences / recommendations will help you on your ride.

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