

# WEIGHT LOSS IN CATS

One of the most common presentations we see in our hospital is the middle aged or senior cat who is losing weight and becoming thin. Sometimes these cats have other symptoms that clue us in as to possible causes. For example, if the cat is drinking and urinating more than it used to we would focus in on kidney disease and diabetes as the two most likely causes. If we have an increased heart rate or blood pressure, a new heart murmur and weight loss despite a great appetite we would think first of thyroid disease. Many times, however, weight loss and a picky appetite are all that we see. Some detective work and a logical plan are needed to work through the possible causes.

Pancreatitis, heartworm disease, infections, allergies, parasites, kidney or liver disease, and immune system problems are just a few of the more than 100 causes of weight loss. Cancer has to be on the list as well. There are at least a half dozen fairly common cancers of cats that are internal and invisible from the outside.

Cats often have significant gastrointestinal disease without having vomiting or diarrhea to clue us in. For all that most cats seem to vomit at the drop of a hat, diseases such as inflammatory bowel disease or pancreatitis that would be expected to cause vomiting or diarrhea often do not do so in cats. Never-the-less, we usually take a good, hard look at gastrointestinal function as part of our work-up for a cat losing weight, because that's often where the problem lies.

**Urgency:** Because there are so many causes, there are many tests that may be needed to make an accurate diagnosis. One of the factors that determine how quickly these tests must be performed is the condition of your pet. If the appetite is very poor or non-existent or if weight loss is occurring rapidly, it is important that a diagnosis be obtained rapidly. If pain or a mass is present in the abdomen, tests need to be performed quickly. However, if neither appetite nor weight is affected drastically, the urgency is much less.

**Testing Procedures:** The sequence of tests will vary from pet to pet. The urgency issues already discussed are one of the most important factors that we must consider. However, as a rule, we recommend a basic set of blood tests first, to diagnose or rule out the most common diseases that we see causing weight loss. Liver or kidney disease, diabetes, pancreatitis, anemia or infection may be detected on blood tests. An elevated calcium level in the blood is a hallmark or certain types of cancer. Any of these would prompt us to perform specific tests or treatments for whatever we find is wrong.

If the basic tests do not detect the problem, other tests, listed below, will be utilized. A CBC, chemistry panel and thyroid testing in cats costs about \$150.

**Dental care:** Cats with periodontal disease or resorptive lesions in their teeth often do not eat well and lose weight. If significant dental disease is present or we suspect abscessed teeth or cavities, we will generally take care of the dental work as our next step, as soon as we have ruled out or treated any issues revealed with the screening blood tests. Once the mouth is no longer painful, cats with dental disease will usually gain weight back quickly. If not, then we continue our investigation.

**Stool Testing and deworming:** Parasites are common causes of chronic digestive problems and weight loss. We will almost always want to test your pet's stools for worms before doing more invasive or expensive testing.

Many people hesitate to do these tests thinking that parasites are rare in indoor cats and backyard dogs. That's not true. 95% of kittens have parasites when young and most cats continue to harbor at least a few of them all their lives. Dewormers kill adult worms but not the larval stages in many cases, so we can't ever completely rid a pet of parasites. An indoor cat can flare up with parasites later in life, especially if the immune system is under stress from any other cause.

Because some parasites are difficult to detect in stool samples we may also elect to deworm your pet even if parasites are not found in the stool, especially cats who go outdoors, hunt or have had fleas. These activities increase risk for tapeworms, which are difficult to test for.

A stool test costs about \$30 and deworming costs about \$30-60 depending on the medication, number of treatments and size of the cat.

**Tests for Diseases of the Stomach or Intestines:** If we have ruled out the diseases that are easy to test for the next step is usually a set of blood tests that look at the function of the pancreas and the small intestine. We refer to this set of tests as a gastrointestinal or GI panel. There are four tests in the panel: PLI is an enzyme produced by the pancreas. An elevated PLI means the pancreas is inflamed and the pet has pancreatitis. Pancreatitis is very common in cats, and is treated with pain medication, anti-nausea medication and special low-fat diets. The other pancreatic test is the TLI. This one tells us whether the pancreas is making enough digestive enzymes to properly digest food. If not, we can add enzymes to the food to replace what the pancreas isn't producing.

The intestinal tests are both looking for changes in vitamin levels. Low cobalamin and/ or high folate levels mean intestinal disease is present. When the intestine is thickened and not functioning properly vitamin B12, or cobalamin, is not absorbed well and the level of cobalamin in the bloodstream becomes too low. If your pet's B12 level is low we will teach you how to give vitamin B12 injections at home to improve the blood level and also start treatment for intestinal disease.

When bacteria overgrow in an unhealthy intestine they produce excess folate, which then shows up in the bloodstream. If this is the case we treat with antibiotics. Probiotic supplements may also be used to reintroduce healthy, good gut bacteria. Treatment may be needed anywhere from a few weeks to forever.

A GI panel costs about \$165 and it takes 5-10 days to get results back from the lab.

**Radiographs (x-rays):** If stool and blood tests don't determine the cause of a cat's weight loss we then move on to radiographs. Radiographs can be taken to look for kidney stones, heart disease or tumors within the chest or abdomen. **These radiographs do not require sedation or anesthesia unless the pet is very uncooperative.** Depending on how many x-rays we take and whether an extra office is needed to take them, the cost will be anywhere from \$90 to \$200.

**Age & arthritis:** Pain, such as from arthritis, can make a cat feel miserable and eat poorly. If we suspect pain may be part of the problem with weight loss we will usually do a trial of pain medication at this point, if we haven't done so already.

The intestinal tract becomes less efficient with age. Elderly cats absorb as little as 30% as much of the food they eat as a younger cat does. If a cat is over the age of 16 and is slowly losing weight, sometimes we can chalk it up to old age. The problem is that it's also possible that a disease process is actually causing the weight loss. If we assume it's old age and it's not, the cat won't receive treatment it needs to get better.

Clients often hesitate to do an extensive work-up on an elderly pet, so we will generally take some time at this point to talk about how much we want to do in the way of testing beyond this point. For a younger cat, say ten to fifteen years, significant weight loss is not going to be due to age. There has to be a disease process going on somewhere.

**Ultrasound:** If we don't find an obvious tumor or other problem on radiographs the next step is an ultrasound exam of the abdomen. An ultrasound study is performed with a machine that sends sound waves into the body. Their reflections are analyzed by a computer and formed into an image on a computer-type screen. There is no radiation involved. These images allow a trained operator to visualize the structure of the stomach and intestinal walls, which we can't do with x-rays. It also permits evaluation of the liver, kidneys, lymph nodes and other abdominal organs. Biopsy of abnormal areas of most organs is also possible and can provide the needed tissue samples for a diagnosis to be made.

An ultrasound examination usually does not require sedation or anesthesia; however, the cat must lie on its back for 15-30 minutes. Some pets will not do that without sedation. If biopsies are taken, sedation is usually required to prevent pain and to prevent damage to internal organs if the patient struggles during the procedure.

An ultrasound of the abdomen can reveal whether the stomach or intestines are thickened and can help in the diagnosis of pancreatitis and liver disease. Tumors of the gastrointestinal tract and swollen or cancerous abdominal lymph nodes may be seen as well. Sometimes we can obtain biopsy samples of abdominal organs with a needle, guided by the ultrasound image. These are tiny samples, not as good as we can get via surgery, but sometimes they are sufficient to make a diagnosis.

Ultrasound exams are done primarily by radiology or internal medicine specialists. A consultation and ultrasound is about \$350-400, more if sedation is needed or biopsies are obtained. Ultrasound may be recommended as a stepping stone to decide whether an exploratory surgery is warranted.

**Endoscopy and Biopsy:** When we've ruled out most of the causes of chronic diseases with the tests and treatments already discussed, and we still don't have an answer, it's time for endoscopy or exploratory surgery, with the primary objective of getting biopsy samples of the intestines. Inflammatory bowel disease and intestinal lymphoma can both cause thickening of the intestines and poor absorption of food, leading to weight loss. A biopsy means we take a small piece of whatever organ is diseased, put it in formalin, and send it off to a laboratory to be looked at by a pathologist. Looking at the cells under the microscope, the pathologist will tell us whether there is inflammation or cancer. In cats, there is a spectrum of cell changes from the inflammation of inflammatory bowel disease to low-grade lymphoma and on up to high-grade cancerous lymphoma. It can be difficult to tell where along the spectrum a cat falls, so even with biopsy samples we may not have a definitive, cast-in-stone diagnosis. This is our best shot, though, to figure out for sure what's wrong.

There are three ways to get biopsy samples from the digestive tract. The first is an exploratory surgery called a laparotomy where an incision is made into the abdomen, allowing us to see and get samples from all the abdominal organs – stomach, intestines, pancreas and liver. This is the gold standard procedure, as we can get the best samples for the best chance of diagnosis this way.

A laparotomy is a major and expensive procedure but it sometimes is the only way to get the diagnosis we are looking for. You can expect to spend anywhere from \$1500-3000, depending on what we find and how long surgery takes. We do these surgeries here at Best Friends. Complications can include peritonitis and breakdown of the intestinal incisions, requiring a second surgery to fix it. Although complications are rare they are serious when they occur.

The surgery specialists at Lakeshore Veterinary Specialists in Port Washington can do exploratories via laparoscopy. In these procedures small incisions are made into the abdomen to introduce fiberoptic and surgery instruments and biopsies can be taken without the major incision into the abdomen. The equipment and the board-certified surgery specialist needed to do this makes the expense much higher than for an exploratory laparotomy here at Best Friends. You would probably pay \$3000 or more for this type of procedure.

An endoscope is a flexible scope that is inserted through the mouth, down the esophagus, and into the stomach and first few inches of the small intestines. Endoscopy permits a specialist to look at the insides of the esophagus, stomach, and upper small intestines. It also permits biopsies to be taken. The endoscope may also be inserted through the anus and into the colon, called colonoscopy.

Endoscopy requires anesthesia just as the exploratory surgery or laparoscopy would, so there is always a small degree of risk involved. However, the surgery time is usually less and it does not require surgical incisions, so the risk of complications is low.

The major limitations of endoscopy are small biopsy size and the inability to reach and get samples from the liver, the pancreas and portions of the small intestine. It's very common for cats to have problems with the liver, pancreas and intestines all at the same time and if we only biopsy the intestines we may have missed a large portion of the disease we are trying to treat.

Small sample size is a big limitation because the pathologist often needs to see the entire thickness of the stomach or intestine to make an accurate diagnosis. For example, some tumors of the stomach do not go completely to the inner surface of the stomach. Since the biopsies obtained with an endoscope are only made from the stomach lining, it is possible to miss them.

We are not only limited to small samples of the intestines with endoscopy but we also can only reach the duodenum, the first section of small intestine. If the pet's disease is in the jejunum or ileum, the middle and end sections of small intestine, we will miss them. It's very frustrating to have done the endoscopy procedure only to get a pathology report back that says the samples weren't good enough to reach a diagnosis. The price for endoscopy isn't lower than the price of an exploratory laparotomy and in fact is often higher. Thus we usually only recommend endoscopy when a pet has health problems severe enough to make a laparotomy unsafe.

**Medication trails:** As you've probably figured out through reading this, it can be expensive to test for all the causes of weight loss in cats. We don't always have the luxury of every one of these tests. When we must, sometimes we treat for the problems we think are most likely and hope the pet responds.

Many times, this will include a steroid trial. Inflammatory bowel disease is common but often is difficult to diagnose. Prednisolone is the best treatment for it and luckily it's an inexpensive drug. It reduces inflammation in the intestines and also makes the cat feel better and often eat better. Cats are very resistant to steroid side effects but if the pet has diabetes, periodontal disease, heart disease or other problems that steroids can make worse giving these drugs could be a concern. Steroids slow healing and mask IBD and lymphoma on biopsies so once we make a decision to start prednisolone we can't go back later and decide we want to do an exploratory surgery.

Intestinal lymphoma in cats often responds to a chemotherapy drug called chlorambucil. It's an oral medication that you would give at home in addition to prednisolone. It is also used for severe cases of IBD that don't respond to pred alone. Since lymphoma in cats often has a really good response to treatment with this drug it's another one that we may treat with to see if it helps even without biopsies to tell us what is wrong. Chemotherapy is not something to take lightly and monitoring is needed for cats on this drug but it's worth a try if our other tests and treatments haven't fixed the problem.

Some cats will be nauseated even if they aren't actually vomiting, so anti-nausea medication can help some cats to eat and feel better. We also can prescribe appetite stimulant medication just to spark a better appetite. Pain medication can help cats with abdominal pain from pancreatitis or kidney stones. Again, the sicker the pet, the quicker we need to move on figuring out the problem and dispensing medication.

It can be frustrating to have to go through all this in order to figure out what is wrong with a cat. If only they could talk and tell us what they are feeling! We also tend to be more limited in

our tests and treatments than we would be in human medicine, due to financial constraints but also because of the impracticality of doing major tests such as MRIs. In people who are severely ill and die under ICU care the working diagnosis – what the doctors thought was wrong with the patient – turns out to be wrong when an autopsy is done over 1/3<sup>rd</sup> of the time. This is no less true for us. We've found severe liver cancer on autopsy in a cat with normal liver blood tests. We've had a cat who didn't eat because a tumor was fusing his jaw closed, though a biopsy of that area 6 weeks earlier didn't catch the cancer because it was too deep in the jaw at that time. We've found tumors that didn't show up on ultrasound or x-rays. We've even had cats mysteriously get better again on their own, without us ever figuring out what was wrong.

Luckily, these sorts of confusing cases are relatively rare. Most of the time we can identify and address a specific disease or two that account for the symptoms we are seeing relatively early in the process. We probably only see 6-10 cases a year that go all the way down the road and still leave us looking at the final option of exploratory surgery. We will work closely with you to get to our diagnosis as quickly and efficiently as possible, so as to conserve your resources and to make things less stressful for your cat. Please let us know if you need to discuss your pet's progress or prognosis at any stage along the way.

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