

# Feline Hepatic Lipidosis (Fatty Liver) in Cats

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Feline hepatic lipidosis is a common condition in cats in which the liver accumulates a large amount of fat and the liver cannot function normally. It is a very serious disease, and unless treated aggressively, can be fatal.

What causes feline hepatic lipidosis?

Feline hepatic lipidosis can occur because of nutritional, metabolic or toxic injury to the liver. Feline hepatic lipidosis has been associated with [diabetes mellitus](#), [hyperthyroidism](#), heart disease, kidney disease, chronic [feline lower urinary tract disease \(FLUTD\)](#) (now called FUS), chronic upper respiratory disease, cancer, and pancreatitis. Approximately 50% of cases, however, are called 'idiopathic,' meaning we do not know what has caused the condition, although almost all cases are associated with obesity. I become very concerned when I see an overweight cat because of the potential for that cat to develop this disease. Stress seems to 'trigger' the disease. Stresses can include a change in diet, a concurrent disease such as a bacterial infection, a change in the environment (new home, new baby, new pet, etc.), or a prolonged decrease in appetite for other reasons.

Most cases of feline hepatic lipidosis are associated with obesity.

What are the signs of hepatic lipidosis?



Most cats with feline hepatic lipidosis are older, overweight, and have gone through some stress which has caused a decrease or lack of appetite. Most cats with hepatic lipidosis become depressed and the decreased appetite continues over the course of days to weeks. Many cats, then, will have lost a considerable amount of weight before they are seen by a veterinarian. Many cats lose a large amount of muscle mass. Sporadic vomiting is common, as is jaundice.

Some cats may develop hepatic encephalopathy, an abnormality of the brain function due to liver disease. These cats may appear to be more depressed and lethargic.

How is hepatic lipidosis diagnosed?

History: The history of an overweight cat losing his appetite and losing weight would give the veterinarian the suspicion that the symptoms could be indicative of hepatic lipidosis (among other things).

Physical Exam: On a physical exam, the liver may or may not feel enlarged. Again, the veterinarian would note an overweight cat that has lost muscle mass. Jaundice may be present which would be highly suggestive of a liver disease.

Laboratory Findings: The diagnosis of hepatic lipidosis is supported by blood tests included in a [chemistry panel](#), which indicate the liver is damaged. The liver enzyme SAP is usually markedly elevated. Other liver enzymes such as ALT (SGPT) and AST (SGOT) are usually increased. The bilirubin (a breakdown product of red blood cells, which is normally eliminated by the liver) can be increased above normal as well. High cholesterol and ammonia levels are common. The results of a bile acid test would be abnormal.

Some cats may be anemic, and have decreased clotting ability in their blood.

Radiographs (X-rays): The liver may appear normal in size or enlarged.

Ultrasound: Typical changes can be seen in the liver and the ultrasound can rule out some other causes of the symptoms and laboratory abnormalities.

Biopsy: The way to definitively diagnose hepatic lipidosis is through a liver biopsy or fine needle aspirate.

What is the treatment of feline hepatic lipidosis?

The keys to successful management of cats with lipidosis are early diagnosis and intensive nutritional support.

Change in Diet: Cats will need to have nutritional support for 3-6 weeks. The cat is fed a high-protein, calorie-dense food. Because these cats are already very ill and stressed, extreme care must be taken to not stress the cats further by force feeding.

Feeding Tubes: In almost all cases, a feeding tube needs to be placed. This tube can be inserted through the side of the cat into the stomach, through the nose and into the stomach, or into the esophagus and down to the stomach. The type of tube used depends on the size of the cat, the seriousness of the illness (can the cat be anesthetized?), and the preference of the veterinarian and owner.

Appetite Stimulants: Appetite stimulants such as diazepam are usually NOT effective because they are best used in cats who still have some appetite and interest in food.

Fluids and Electrolytes: Many cats with hepatic lipidosis are dehydrated. If the cat has had significant vomiting, the potassium level in the blood is often low and needs to be supplemented.

Vitamin Supplementation: The liver is responsible for making the factors that help blood to clot. It needs [vitamin K](#) to do this.

Normally, the liver stores vitamin K so it is readily available. Cats with hepatic lipidosis may need supplemental vitamin K to correct a coagulation (clotting) problem.

A multiple vitamin supplement is recommended. [Thiamine](#) deficiency can occur as a result of long periods of anorexia, so thiamine supplementation is of particular importance.

Gastrointestinal Medications: Drugs such as [cimetidine](#) (Tagamet) or [ranitidine](#) (Zantac) are often used to prevent ulceration of the stomach or intestine. Medications such as [metoclopramide](#) are often given to decrease vomiting and stimulate the movement of food through the stomach and intestine.

Treatment of Hepatic Encephalopathy: In those cats with hepatic encephalopathy, drugs such as [neomycin](#) and [metronidazole](#) can be used.

Antibiotics: Because these cats are very stressed, their immune system may not function adequately. As a preventive measure, antibiotics such as [amoxicillin](#) are sometimes given.

What is the prognosis for cats with hepatic lipidosis?

Even with intensive care, approximately 35% of cats with hepatic lipidosis die from the disease. Cats who do recover generally do so in 3-6 weeks, however, some may need continued nutritional support for months.

Generally, the damage to the liver is reversible, and the condition rarely recurs.

How is hepatic lipidosis prevented?

Owners play an important role in preventing hepatic lipidosis. By keeping your cat in a healthy [body condition](#), you can greatly reduce his risk of developing this disease.

Care must be taken in developing [weight reduction programs](#) for obese cats. Greatly restricting intake or using a food the obese cat will not eat could incite the development of hepatic lipidosis.

Obese cats who lose their appetite for any reason should be considered candidates for developing hepatic lipidosis and nutritional support should be given.

