



## Feline Diabetes

Feline Health Video: Diabetes

### What is diabetes mellitus?

Diabetes mellitus—also known as "sugar" diabetes—is a complex but common disease in which a cat's body either doesn't produce or doesn't properly use insulin. During digestion, the fats, carbohydrates, and proteins that are consumed in the diet are broken down into smaller components that can be utilized by cells in the body. One component is glucose, a fuel that provides the energy needed to sustain life.

Insulin is a hormone produced in the pancreas, is responsible for regulating the flow of glucose from the bloodstream into the cells of the body. When insulin is deficient or ineffective, the cat's body starts breaking down fat and protein stores to use as alternative energy sources. As a result, the cat eats more yet loses weight. Additionally, the cat develops high levels of sugar in the bloodstream, which is eliminated in the urine. In turn, sugar in the urine leads to excessive urination and thirst. Cat owners often notice these four classical signs of diabetes mellitus: ravenous appetite, weight loss, increased urination, and increased water consumption.

Diabetes mellitus is generally divided into two different types in cats: insulin-dependent diabetes mellitus (IDDM), and non-insulin-dependent diabetes mellitus (NIDDM). Approximately one-half to three-quarters of diabetic cats have and thus require insulin injections as soon as the disease is diagnosed. The rest have NIDDM; however, most ultimately require insulin injections to control their disease.

While diabetes mellitus can affect any cat, it most often occurs in older, obese cats. Male cats are more commonly afflicted than females. The exact cause of the disease in cats is not known, although obesity (the major predisposing condition), chronic pancreatitis, other hormonal diseases (e.g., hyperthyroidism, Cushing's disease, and acromegaly), and certain medications (e.g., megestrol acetate and corticosteroids like prednisolone) have all been linked to the disease. Burmese cats in New Zealand, Australia, and the United Kingdom are prone to developing diabetes, but this doesn't appear to be the case in North America.

### How is diabetes diagnosed?

Diabetes mellitus is diagnosed based on the cat's signs, physical examination findings, laboratory test results, and the persistent presence of abnormally high levels of sugar in the blood and urine. Once diabetes has been diagnosed, immediate treatment is necessary.

Left untreated, diabetes will shorten a cat's lifespan. A dangerous, sometimes fatal condition called ketoacidosis may develop, indicated by loss of appetite, vomiting, diarrhea, lethargy, weakness, dehydration, and breathing abnormalities. Additionally, diabetes can lead to an unhealthy skin and coat, liver disease, and secondary bacterial infections. A diabetes-related disorder called diabetic neuropathy may cause cats to become progressively weaker, especially in the hind legs, impairing their ability to jump and causing them to walk with their hocks touching the ground.

Diabetes treatment is based on the severity of the disease. Cats with ketoacidosis require prompt intensive care, which usually includes fluid therapy and short-acting insulin injections. For cats that are not severely ill, your veterinarian may recommend a treatment plan that includes insulin injections or oral medications, along with dietary changes.