What Is It?
Diabetes mellitus is a disease of the pancreas, a small organ near the stomach. The pancreas has two specific cell groups; the first group produces enzymes for food digestion and the other cells produce insulin, a hormone necessary for blood glucose level (sugar) regulation. Insulin is necessary for the glucose in the blood to become accessible by tissues within the body. Once the glucose is taken up into the tissues, it is used in the production of energy. Most diabetic cats, approximately 65-76%, are affected by type 1 DM (insulin dependent) which occurs due to a complete or near complete destruction of the pancreatic cells required for insulin production. The rest may suffer from non-insulin dependent diabetes (Type 2). All diabetic cats fall into the categories of uncomplicated diabetes or complicated diabetes. A cat with uncomplicated diabetes typically presents with a history of increased thirst, urination, and appetite with decreasing weight. A pet with complicated diabetes will present ill with uncontrolled or undiagnosed DM and may require hospitalization, however once stabilized, these patients then become uncomplicated diabetics. Long term effects of DM can include persistent frequent urinary infections and rear limb weakness leading to a flat-footed stance in the rear end.

Diagnosis
A preliminary diagnosis of diabetes, based on symptoms and a physical examination, is further confirmed with blood and urine tests, before initiating therapy. Diabetes mellitus is diagnosed in a cat with repeatable elevated blood sugar (hyperglycemia) AND sugar in the urine (glycosuria). Another test measuring fructosamine (a type of long-lasting sugar in the blood) can help to confirm the chronic nature of DM. Once diabetes is confirmed, other testing initially may include: a urine culture, X-rays, and specialized blood panels.

Treatment and Management
The goals of management include: minimizing the symptoms, treating concurrent illnesses, slowing long term complications, and avoiding low blood sugar. Once stabilized, felines with DM generally require twice a day insulin injections given under the skin. Your veterinarian will teach you how to give the injections, and discuss medications and handling, needles, food, and overall care. Adjustments in the type or dosage of insulin and treatment of other illness may be necessary long term. The use of prescription DM feline diets are highly recommended to decrease the body’s insulin need and promote nutritional health. Monitoring long term can include: periodic in hospital or at home blood and urine testing, blood sugar curves, fructosamine testing, and monitoring of the clinical symptoms like excessive thirst and urination. Cats with DM require consistent feeding times, insulin injections twice a day, and restriction of treats and meals in between. As a pet owner, the ability to provide a consistent schedule, medical and dietary needs, follow up, and monitoring is imperative to the pet’s long-term health. The most significant complication is generally low blood sugar (hypoglycemia), which most commonly results from insulin overdose from owner error at home; severe or prolonged hypoglycemia can result in coma, seizures, and death.

Prognosis
Most cats with DM can live a good quality life with controlled symptoms. However, DM in cats cannot be cured and requires lifelong therapy. The expenses are greater initially, upon diagnosis and stabilization, then lessen significantly during chronic treatment. Complicated feline diabetics that may have other illness, show
resistance to diabetic control via resistance to insulin, and those presenting in a state of ketosis (critically high levels of blood sugar) have a worsened prognosis. Despite our best efforts, some cats may be difficult to manage and require frequent veterinary intervention. Management of concurrent illnesses such as urinary tract or skin infections, is necessary to provide the best prognosis possible. Consult your veterinarian and, if warranted, veterinary internal medicine specialist for an individualized plan to best treat your cat.

Management Tips

Consider providing:
- Easily accessible water
- Consistent measure meals
- Wet food to increase water intake
- At home blood and urine testing

Try to:
- Be consistent with medicating and feeding times
- Track appetite, urination, drinking, weight, vomiting, diarrhea, energy, etc.
- Limit stress (kids, noise)
- Use a prescription diabetic diet
- Keep up with preventative care
- Address concerns ASAP
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- Avoid snacks in between meals
- Never adjust the insulin dose unless previously discussed with your vet
- Assign one person for medicating to avoid missed or overdosed insulin administration
- Refill insulin/needles ahead of time
- Use pet sitters with medical experience or board at a hospital
- Easily accessible water
- Consistent measure meals

Before your pet’s condition becomes unmanageable or they are losing quality of life, it is important to begin end-of-life care discussions. Learn about pet hospice care and/or euthanasia services in your area so you are prepared.