Partner Veterinary URGENT CARE

Diabetes Mellitus

In dogs, diabetes mellitus occurs when the pancreas (an endocrine organ within the abdomen) is unable to produce sufficient insulin to direct glucose out of the bloodstream and into the cells. The cells are unable to use glucose as an energy source and the excess blood glucose begins to spill into the urine.

Clinical signs of diabetes include:

- Weight loss
- Increased hunger and appetite
- Increased thirst
- Increased urination.

In stable pets, diabetes can be managed at home with insulin therapy. There are several types of insulin available and patients may respond more favorably to one type than another. In all cases, insulin must be stored correctly, measured with the correct type of syringe, and given on an established schedule, ideally at mealtime.

Newly diagnosed diabetics are often started at the lower end of an insulin dose and given time to adjust to that dose. Blood glucose curves are then checked routinely and in accordance with your veterinarian's recommendations if adjustments to the dose need to be made.

Low blood sugar (hypoglycemia) can occur if the insulin dose is too high. Occasionally, very low blood sugar occurs late at night and the patient's blood sugar rebounds high by the time it's rechecked in the morning. This is known as the Somogyi effect and may necessitate a 24-hour blood glucose curve or continuous glucose monitoring. This ensures the insulin dose is appropriately adjusted.

Insulin should not be given at home to patients that are vomiting, not eating, or appear weak or disoriented. If your pet is not eating but otherwise stable, you should contact your veterinarian for instructions regarding your pet's insulin therapy and to determine if emergent evaluation is necessary.

If your pet appears disoriented, weak, collapses, or shows any signs of seizure activity, you should apply Karo syrup to the gums and have him/her evaluated immediately to check for life-threatening hypoglycemia (low blood sugar).

Over time, diabetic complications may occur, including cataract formation, frequent urinary tract infections, and pancreatitis.

In cases of unregulated or poorly regulated diabetes, patients can develop a life-threatening metabolic crisis called diabetic ketoacidosis (DKA). Diabetic ketoacidosis occurs when the body is unable to use glucose as an energy source and starts to break down fat into ketones. As a result, those ketones as an alternative energy source. Without adequate insulin, ketones cannot be safely or completely metabolized and instead build up in the bloodstream. Because ketones are acids, they acidify the bloodstream and can cause significant clinical illness. Diabetic ketoacidosis can generally be treated successfully, but it requires intensive supportive care.