



Always consult with a veterinarian that you feel comfortable with before diagnosing or treating any disease on your own. This information is for reference only.

[www.furrycritter.com](http://www.furrycritter.com)

## Diabetes In Dogs

### Issue Description

*Diabetes mellitus is a disease caused by a deficiency of insulin. Insulin is a hormone produced by a certain cell in the pancreas, and is necessary for the body tissues to use to absorb blood sugar.*

### Other Names

*Canine Diabetes, Diabetes Mellitus, DM*

### Causes

#### Diabetes Insipidus

(See Diabetes Insipidus for an extended explanation)

Diabetes insipidus is a disorder in which the kidney is insensitive to a hormone, called anti-diuretic hormone (ADH) or in which there is not sufficient quantity of this hormone available. The result is excessive drinking and urination, or polydipsia and polyuria. This is one cause of changes in urinary habits that leads to problems with urination inside the house in dogs in which "housebreaking" seemed to be satisfactory prior to the disease onset.

ADH is secreted by the body when it has a need to conserve water. It makes the kidneys work harder to conserve water, which makes the urine more concentrated. When the dog can not respond to this hormone or doesn't make enough of it, the dog can not concentrate its urine. This can lead to serious problems, including death, if the dog does not have access to large quantities of water. On the other hand, it may not cause any significant problem if there is always plenty of water available. This problem can occur for a number of reasons and for no reason at all. Examples of predisposing causes are kidney failure, hyperadrenocorticism, liver disease, pyometra and others. These things affect the kidney's ability to respond. Head trauma or brain cancer can affect the body's ability to produce ADH. This condition is treated using desmopressin acetate (DDAVP), which is a replacement for the anti-diuretic hormone. It can be administered intranasally or on the conjunctiva (the inside lining of the eyes). It is pretty effective. Unfortunately, it is also somewhat expensive. Some dogs benefit from therapy with other medications, including chlorpropamide and chlorothiazide diuretics.

The prognosis for this condition varies with the underlying cause. Dogs that have diabetes insipidus due to trauma often recover in a short time and the same is true after successful treatment of pyometra. The prognosis is good for spontaneous occurrences of diabetes insipidus as well. When it occurs for other reasons the prognosis is usually less favorable.

#### Diabetes Mellitus

There are two types of diabetes mellitus in dogs. Type I DM occurs when the body does not produce enough insulin. This can be the result of destruction of the cells in the pancreas that normally produce insulin. This form does not produce enough insulin and requires insulin injections to control the disease. Type II DM occurs when enough insulin is produced but something interferes with its ability to be utilized by the body.

Diabetes is an endocrine disease that is brought about by the malfunction of the endocrine glands.

Older dogs and bigger dogs are more susceptible to dog diabetes than smaller breeds. Obese female dogs are even more prone to diabetes. Once the pancreas fails to secrete the right level of insulin needed by the dog to utilize all of the glucose produced by the body, the problem occurs.

Diabetes in dogs can also be hereditary disease. It is also considered as an autoimmune disease that may lead to further system malfunctions. Early diagnosis is very crucial so that the dog's disease can be reversed. To determine if

your dog has diabetes, a sugar blood test is required. A veterinarian can conduct this test, so try to schedule a visit as soon as possible. Once diabetes is diagnosed in your pet, regular monitoring is necessary to make sure that your pet remains in good condition despite the onset of the disease.

The common form of diabetes in dogs is analogous to juvenile diabetes in people. This form of diabetes can not be managed by diet alone and will require the owner to administer one to two injections of insulin a day for the rest of the dog's life. Two to four small meals rather than one large meal to better manage the blood insulin and glucose levels and this will be coordinated with giving insulin injections.

Although the exact cause of diabetes mellitus in dogs is unknown, the excess glucose causes most of the clinical signs and long-term complications. There is great individual variation in cases of diabetes, and the dynamics and treatment requirements may change over your dog's life span. It is important to work with your veterinarian to determine the appropriate frequency of injection, dosage, and type of insulin to use.

## **Symptoms**

Elevated blood sugar (glucose) can affect many systems of the body. Excess blood sugar will be lost through the kidneys, causing increased urination and thirst. Elevated blood sugar also alters the lens of the eye, leading to diabetic cataracts. A loss of muscle mass combined with inadequate energy levels within the cells lead to generalized weakness. The most common signs of diabetes are weakness, weight loss, and increased thirst and urination.

## **Diagnosis**

The vet will want to perform blood tests to see how high the levels of glucose are in the bloodstream and to make sure no other organs have been affected by diabetes. They will also want to perform a urinalysis to check kidney function and monitor for urinary tract infections; which are common in diabetics.

## **Treatment**

Simply controlling the diet is seldom beneficial in the dog. Similarly, oral insulin tablets are not commonly effective in dogs. The treatment for a diabetic dog involves daily insulin injections. Dogs must be carefully monitored with blood and urine sugar tests to help determine the proper amount of insulin. Daily feeding must be on a regular schedule to provide a consistent supply of sugar so that insulin remains at the required level.

Some dogs with diabetes can live relatively normal lives with proper care. Maintaining the diabetic pet requires dedication on the part of the owner. Many pet owners have found the experience to be a rewarding one.

*The material and information on this website, including any merchandise, information or service provided through this website, is provided "as is" with all faults and without warranty of any kind from the Furry Critter Network, expressed or implied. In no event shall the Furry Critter Network be liable for any direct damages, special, incidental or consequential damages, lost profits, or any indirect damages arising from the use or inability to use this website, even if the Furry Critter Network has been informed of the possibility thereof.*