



Diabetes mellitus

This as a disease in dogs and cats is very similar to that in humans. It is an absolute or relative insulin deficiency in the body. Insulin is necessary as the 'key' to unlocking sugars from the blood stream and allowing them access to the cells of the body giving them the energy they need to function.

What does this mean to you?

The pancreas is the organ in the body which among other things is responsible for producing insulin. It is situated in the abdomen, next to the stomach. If the pancreas fails to produce enough insulin, cells no longer have the needed 'key' for using sugar. These cells then 'starve' despite high blood sugar and the message sent back to the brain is 'to eat more'. A diabetic patient is therefore typically hungry ALL THE TIME but constantly losing weight.

When this sugar accumulates in the blood, it 'spills' over into the urine. Sugar cannot appear in the urine by itself and will never be there in a healthy individual. Once sugar is present in the urine it draws more water in to the bladder, much like a sponge draws water. This is why your diabetic patient urinates so frequently. In response to this excess water loss your pet may become very thirsty and result in excessive drinking.

The above responses to a lack of insulin are natural and instinctive. They are unavoidable. All individuals (animal or human) with diabetes have the same symptoms: They all eat excessively, they all lose weight, they all drink a lot, and urinate frequently.

A diagnosis of Diabetes is confirmed with a urinalysis and blood test. On occasion additional tests are required, but these will be discussed with you in person.

It is very uncommon if not impossible for a patient with diabetes to be cured, but rather managed. This requires a close relationship between you, your pet and your vet. It will mean regular check-ups, blood tests and numerous injections, but once your pet is on the correct dose of the correct insulin, he/she will have a normal, healthy and happy life.

The easiest and best way for us to achieve this is with what we call a glucose curve. This is a graph made up of the sugar levels of your pet taken over regular intervals throughout the day, preferably over a meal and an insulin injection.

This will allow us to trace the response to treatment (whether the blood glucose came down to within normal range) but also the duration (whether it stayed down long enough).

Dr J.vdV. Basch BVSc

Trading as Fernridge Veterinary Clinic CC

Vat: 4100125584 Ck No 1990/002608/23

Tel: +27(11) 787 9700 • **Fax:** +27(86) 614 7990 • **Email:** clinic@fernvet.co.za

123 Bram Fischer Drive, Ferndale, Randburg, 2194
P.O. Box 2212, Randburg 2125



This then allows us to assess whether your pet is on the correct type and dose of insulin. In some cases it may take just one such glucose curve to stabilise your pet, but in others it may take up to 4/5 or even more. They will be repeated every 7-10 days and the insulin type and/or dose adjusted after each.

For these glucose curves it is important that your pet is hospitalised for the day. Under certain situations you (as the owner) may obtain a glucometer and take readings yourself at home and bring them in for evaluation. This will be discussed in consultation as one cannot just prick a dog/cats 'finger' in order to get a reading as we can in humans.

At a discharge appointment you will be given an insulin type and dose and shown exactly how to use it. You will then be administering this to your pet daily or twice daily as prescribed.

Some pointers

- Refridgerate insulin (never freeze)
- Use a clean needle and syringe
- Do not EVER shake insulin, gently invert it to 'mix' the contents (holding it in your fist rotate or roll)
- Your pet should eat in conjunction with the insulin injection to avoid hypoglycaemia (a too low sugar concentration in the blood)
- It is a subcutaneous injection (under the skin)
- The twice daily injections should be given more or less 12 hours apart at feeding.
- A special diabetic diet is best as it allows for a slower, regular release of sugar (low GI)
- Maintain your pets normal weight and keep a check on this, as a patient that loses or gains weight will then have a relative over or under dose of insulin
- A missed insulin dose or under dose due to user error is preferred over an over dose therefore NEVER administer more insulin at that time but when it is next scheduled

Cataracts?

Almost all diabetic dogs become blind within the first year. This is due to cataract development in the lens and it is virtually unavoidable. These can be surgically remove in some, but not all diabetically stable dogs. This procedure is offered by the Johannesburg Animal Eye Hospital. (011 465 1237)

Dr J.vdV. Basch BVSc

Trading as Fernridge Veterinary Clinic CC

Vat: 4100125584 Ck No 1990/002608/23

Tel: +27(11) 787 9700 • **Fax:** +27(86) 614 7990 • **Email:** clinic@fernvet.co.za

123 Bram Fischer Drive, Ferndale, Randburg, 2194

P.O. Box 2212, Randburg 2125



What should be done if anything goes wrong?

The best is to bring your pet in to us immediately. It is better to bring your pet to the vet unnecessarily than to ignore a serious complication.

Above all if you are worried or uncertain please do not hesitate to call or come in. We will be more than happy to help.

Regards FVC team

Dr J.vdV. Basch BVSc

Trading as Fernridge Veterinary Clinic CC

Vat: 4100125584 Ck No 1990/002608/23

Tel: +27(11) 787 9700 • **Fax:** +27(86) 614 7990 • **Email:** clinic@fernvet.co.za
123 Bram Fischer Drive, Ferndale, Randburg, 2194
P.O. Box 2212, Randburg 2125

