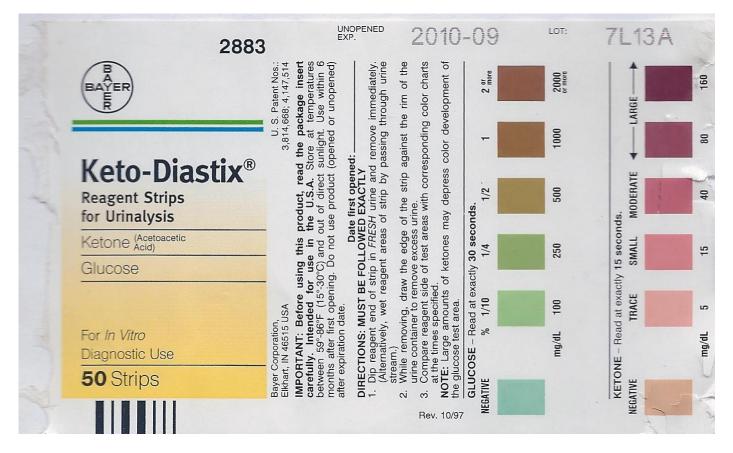


DIABETES: MONITORING URINE WITH KETO-DIASTIX

The overall goal of treatment is to keep the pet's blood sugar levels within the normal range for as much of the day as possible. This is accomplished primarily through the daily administration of *insulin* by injection to make up for the insulin that the animal's body is not producing on its own.

When giving insulin, we must monitor the pet to tell when the insulin dose needs adjustment. While this may be accomplished with more accuracy by measuring blood sugar levels, for many it is more feasible to monitor the urine, using Keto-diastix to decide how and when to adjust the dose. Below are guidelines to help you:



Keto-diastix can be purchased at most pharmacies. Make sure to get the specific product, which tests urine (not blood) for both glucose and ketones. Specific step by step instructions are presented on the back of this page.

<u>Collecting sample</u>: At the time of testing, use a small dish to collect some urine. Only a small amount is needed. For cats, a urine collection kit may be used (in place of litter) to collect urine. The best way to get a sample may be by holding the keto-diastix in the urine stream while your pet is urinating, but if he/she has urinated on the floor, the keto-diastix may be placed directly into the urine to obtain a sample. Make sure that urine covers both squares on the stick.

Reading the sample:

- As soon as you collect the sample on the stick, start counting seconds.
- The KETONE square should be read after 15 seconds. Compare the color of the square to the colors on the bottle's ketone



chart, choosing the one that most closely matches the color on the dipstick at the 15 second mark (note that the color may change as time goes on). We try to use the mg/dl scale listed below the boxes on the chart.

- While you are reading the KETONE result continue counting seconds. After 15 more seconds (for a total of 30 seconds since urine was applied to the dipstick), compare the color on the GLUCOSE square to the bottle's glucose chart, choosing the one that most closely matches the color on the dipstick. Again, we try to use the mg/dl scale listed below the boxes
- Record the result you get, along with the time that you made the reading.

Interpreting the results:

In the well regulated diabetic animal, the KETONES should always be NEGATIVE. If the ketones read more than 5 mg/dl (trace), please contact the clinic for advice.

In the well regulated diabetic animal, there is often some GLUCOSE in the urine, ideally between 100 and 500 mg/dl.

- Please note that glucose levels in urine, like in blood, vary in relation to the time that the insulin was given.
- If the GLUCOSE is NEGATIVE, then a reading should be retaken the next time the pet urinates. If it is still negative, the insulin dose may need to be decreased; STOP giving the insulin and contact the clinic for advice.
- If the GLUCOSE is *consistently* >1000 mg/dl, then the insulin dose may need to be increased (it is best to call the clinic before increasing the insulin dose on your own). Note that if the dose was recently changed, it may take up to 5-7 days to see the effect of that change on the urine.

In summary, Keto-diastix readings are helpful in monitoring the insulin dose and knowing when adjustments are needed. Remember, it is always better to give less insulin than is needed than it is to give too much insulin, so be careful when increasing the dose. Do not hesitate to contact the clinic if you have any questions regarding diabetes, insulin, or using the keto-diastix.