



Western Hills Animal Hospital

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Diabetes Management

Diabetes mellitus is best managed and regulated at home. The objective of insulin therapy is to achieve normal blood glucose at the time of peak insulin action in late afternoon or early evening and to have slightly elevated blood glucose in the morning. We can usually achieve this by a strict feeding schedule throughout the day. Insulin needs may change from day to day because the dog's exercise, food intake and stresses in its environment change. Your dog has probably had an elevated blood glucose for several weeks now and there is no need to decrease it rapidly because too little glucose in its blood is life threatening. It may take several days to achieve regulation.

The same amount of food should be fed daily. A high protein/low carbohydrate and low fat diet is preferable. Diet changes are not necessary. If animal doesn't eat his/her food give $\frac{1}{2}$ previous day's dose of insulin.

Exercise should be kept the same daily because increased or decreased amount of exercise changes her/his body's need for glucose.

Ketodiasix or a comparable product should be used to monitor the urine glucose. Changes in the urine glucose concentration will tell you what changes to make in the amount of insulin to give. Remember that the urine glucose reflects blood glucose values from the previous 6 to 12 hours. Therefore, if your dog has a reaction to too little glucose in the blood and you have to give it Karo syrup, do not increase the insulin dosage the next day if the urine glucose is 4+. Give the same amount of insulin. The following is a chart to follow to determine the amount of insulin to be given:

- If urine sugar is 4+--- increase 2 units over previous day's dosage .
- If urine sugar is 3+--- increase 1 unit over previous day's dosage.
- If urine sugar is 2+ ---increase $\frac{1}{2}$ unit over previous day's dosage.
- If urine sugar is trace or 1+ ---repeat the previous day's dosage.
- If urine sugar is negative ---decrease 2 units from previous day's dosage.

The ultimate goal is to keep the morning sugar at trace to 1+ level.

If no urine can be obtained and your animal is well regulated, the previous day's dosage can be given. If in doubt you can decrease the dose. The next day more insulin can be given if necessary. This is preferable to having too little blood glucose.

The following is a schedule to follow:

1. First thing in the morning obtain a urine sample and determine the amount of sugar in the urine.
2. Give the adjusted insulin dose under the skin.
3. Then feed your dog $\frac{1}{2}$ its total daily food intake.

4. 8 to 10 hours later feed the other ½ of its food.

You should keep a daily log of:

1. Morning glucose and ketones
2. Daily insulin dosages
3. Appetite morning and evening
4. Any abnormal daily occurrences (vomiting, diarrhea, etc.)

You should call the vet when:

1. Ketones in the urine are seen.
2. Big urine glucose fluctuations occur.
3. High amounts of glucose in the urine persist.
4. Signs of disease are noticed.
5. No glucose is noticed in the urine for 3 or more days.

Observe the dog closely during times of peak insulin action. If weakness is noted, give Karo syrup (3 to 5 tablespoons full per 20 lb. dog). If no improvement is noticed in 30 minutes, take dog to veterinarian.

The addition of Karo syrup the night before does not indicate an increase in insulin the next day if urine glucose is greater than 1+.

Indications of low blood glucose may range from weakness to seizures, collapse and coma. Weakness may be treated with Karo syrup or honey, but if other signs are seen, take the dog to the vet.