

General information – managing diabetes in cats

How is diabetes treated in cats?

Treatment of diabetes in cats requires daily administration of insulin injections and appropriate nutrition, and must be specifically tailored for each individual. The goal is to control the signs of diabetes (weight loss despite a good appetite; excessive thirst and urination) and to avoid low blood sugar (hypoglycaemia) due to insulin over-dose. The best outcome tends to be achieved when the owner of the diabetic cat and their veterinarian work together as a team.

What is diabetic remission?

Diabetic remission is a period of time when a diabetic animal does not require insulin injections to control the signs of diabetes. This is quite common in diabetic cats, especially in the initial few months after diabetes is first recognised. There is approximately 50% chance that remission will be achieved in most cats with recent onset of diabetes. It is very important to identify when diabetic control improves so that the insulin dose can then be decreased gradually.

What commitment is required at home when treating a diabetic cat?

Insulin injections are typically administered by the owner to a diabetic pet every 12 hours. It is very important that injections are given at the exact time that they are due.

Step-wise adjustment of the insulin dose and feeding is typically required over several weeks or months before optimal diabetic control is achieved; however, most cats will progressively improve during this process. It is important that a practical system is established to monitor the response to insulin treatment at home. Basic monitoring entails keeping records of water intake, appetite, demeanour, body weight, and undertaking urine testing. The results will be considered together and will inform treatment decisions.

Insulin administration

What if an insulin injection cannot be given on time?

If it is not possible to administer an insulin injection on time, then the best approach in most cases is to miss that injection and resume insulin administration at the next injection time. Missing a single injection will typically have negligible consequences. In contrast, late administration of insulin can lead to increased insulin action (and therefore over-dose) if the following insulin injection is administered on time. The usual meals can be fed whenever an insulin injection is missed.

Animal Diabetes Australia

To book a consultation:

- at Melbourne Eye Vet in Mulgrave - Phone 03 9545 0103 or 1800 393 838
- at Centre for Animal Referral and Emergency (CARE) in Collingwood – Phone 03 9417 6417 before 4.30pm M-F and ask for Kelley

Mobile: 0401 039 711 messages will be checked by 10 am M-F

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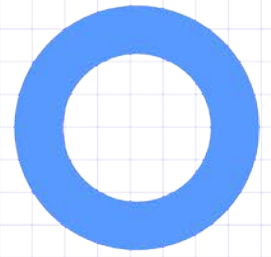
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After hours care is available at CARE (9417 6417) and Boronia Veterinary Clinic (9762 3145) for all clients of Animal Diabetes Australia



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Supporting diabetic companion animals and their families



Insulin dosing pens

Using an insulin dosing pen provides a more accurate and precise means of administering insulin than needles and syringes, and this option is recommended. Injections using an insulin dosing pen are also likely to be less painful for the cat.

Instructions for using an insulin dosing pen:

- Please refer to the instructions provided with the insulin dosing pen.
- It is important that the pen be kept at room temperature below 28C away, from heat and light.
- Before every injection, insulin-dosing pens need to be primed. This may seem wasteful to those not familiar with the protocol but is necessary. Holding the pen vertically, attach the needle onto pen, dial to 2 units (priming dose), and push release button. Watch carefully, if a stream of insulin appears – the pen is primed. If a stream is not seen, prime again. Priming moves the screw into contact with the cartridge plunger and removes air from the cartridge.
- Once primed, dial the dose required on the insulin pen, insert the needle under the skin, push and hold the injection button. After removing the needle from the injection site, it is normal for a drop of insulin to be seen on the needle tip.

Insulin overdose

If signs of insulin overdose (weakness, altered behaviour, collapse, seizure) occur, then the best approach is to apply honey or glucose syrup liberally to the mouth, which will result in improvement within a few minutes. Once there is recovery, additional honey or glucose syrup can be mixed in a meal of the cat's usual food. No more insulin injections should then be given until veterinary advice has been received.

Feeding

Appropriate nutritional strategies can complement insulin therapy in diabetic cats and so it is often beneficial to make changes to the diet or feeding regimen. The lowest carbohydrate foods are the best for diabetic cats. Most canned cat foods have a low carbohydrate content. The only dry cat foods that are generally permitted are the ones specifically formulated for diabetic cats, such as Hills m/d dry food, Royal Canin Diabetic dry food, or Purina ProPlan DM dry food. Meals may be consumed at any time and do not need to be matched with insulin injections.

It is not necessary to match the timing of meals with insulin injections in cats. Insulin injections must always be given on time but diabetic cats may eat at any time.

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Collecting important information about your diabetic cat

Information collected at home about a diabetic cat's progress helps to monitor the success of treatment and can provide clues about the risk of hypoglycaemia (low blood sugar). Basic monitoring entails recording of appetite, general demeanour, daily water intake, changes in body weight, and the presence or absence of glucose in the urine.

1. Appetite, general demeanour and behaviour. These should be recorded every day.
2. Meal amount and composition should also be recorded every day.
3. Insulin dose. This should be recorded twice each day.
4. Water intake. This should ideally be measured every day when your cat is receiving insulin and every week when your cat does not require insulin. Daily water intake is directly linked with diabetic control. The key is to determine how many millilitres of water your cat drinks over a known number of hours. For example, a measured volume of water can be provided in a bowl and access to other water sources prevented. The volume of water remaining in the bowl can then be measured after 24 hours. If the water bowl is shared with one or more other cats, then the volume drunk by all cats should be measured.
5. Urine glucose and ketones. This ideally requires collection of a sample of urine from your cat every day. This can be either a liquid sample, or tap water can be added to urine-soaked kitty litter or soil to provide sufficient liquid for testing. The urine must be tested with test strips such as **Keto-Diastix** and a record kept of the results. Cats that don't use a litter tray will usually readily become accustomed to their owner accompanying them when they urinate outside. Cats typically urinate outside after they eat, or when their owner gets up in the morning or arrives home, and so attention to the cat's daily routine and a little patience allows the cat to become accustomed to having their urine tested.

If the urine is consistently testing negative for glucose, we will need to adjust the insulin dose to avoid insulin overdose. If diabetic remission is achieved, it is likely insulin will again be required at some point in the future. Therefore, monitoring urine glucose at least once a week is recommended for life, even if diabetic remission is achieved.

6. Body weight. Ideally, a diabetic cat's body weight should be recorded once each week. It is important to use the same scales each time the cat is weighed. Scales designed for weighing adult humans are not suitable for cats. Scales designed for babies are a suitable option.

If some aspects of basic home monitoring are too difficult or if additional information is required, alternative options include regular testing of blood glucose at home, flash glucose monitoring, and/or laboratory measurement of blood fructosamine.

Please don't hesitate to call or email us if you have any questions or concerns.

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