



CARING FOR YOUR DIABETIC CAT

OWNER MANUAL

Visit www.caninsulin.co.uk/cats
to learn more about cat diabetes and how
to use Caninsulin and VetPen



This manual covers essential information on diabetes and is designed to answer questions you might have about your cat's condition and its treatment.



BY YOUR SIDE, EVERY STEP OF THE WAY

If your cat has recently been diagnosed with diabetes, like many owners you may be feeling anxious about what the future holds or have concerns about how you or your pet will cope.

The good news is that, for the majority, it turns out to be overwhelmingly positive. A survey of the owners of diabetic pets,¹ undertaken at the Royal Veterinary College, found that nearly 70% would recommend to other people that they should proceed with insulin treatment if their pet was diagnosed with diabetes.

This manual is designed to answer questions you might have about your pet's diabetes and its treatment. It covers essential information on the condition, including the two available methods to administer your pet's insulin: disposable syringes and VetPen®. It also describes how some pet monitoring products such as Felaqua® Connect and the SureFeed® Microchip Pet Feeder Connect can sometimes prove helpful in supporting your pet's care.

A separate 'Diabetes Diary' booklet, which we can provide, should be used to help record your pet's progress on treatment or alternatively we may suggest you download our 'Pet diabetes app' from the App Store or Google Play as appropriate.

Further links are provided leading to additional useful information and support on our www.caninsulin.co.uk website. Follow the QR codes or websites referenced in this manual to quickly access related online information.

DIABETES IN CATS

Learning your cat has diabetes can be a shock. Don't worry, with insulin therapy, the correct diet and exercise, your cat's diabetes can be controlled. Your veterinary team will support you along the way so you aren't alone.

WHAT IS DIABETES?

When the food your cat eats is digested, carbohydrates are converted into sugars, including glucose, which then goes into the blood. Glucose is needed as energy by the body's cells to work properly. To enter most of the body's cells, glucose needs help from a hormone called insulin. Insulin is produced in the pancreas. In diabetic pets the pancreas is unable to produce enough insulin or the body's cells become less responsive to insulin.

WHAT ARE THE SIGNS OF DIABETES?

Diabetic cats may show a range of clinical signs due to their illness. In particular, diabetic cats will often drink and urinate excessively. They will also tend to lose weight despite having an increased appetite. General signs such as lethargy and poor coat condition are often seen.



For information on diabetes in cats:
www.caninsulin.co.uk/cats/diabetes-about



For information on detection
and diagnoses of diabetes in cats:
www.caninsulin.co.uk/cats/diabetes-detect-diagnose



For cat diabetes FAQs:
www.caninsulin.co.uk/cats/diabetes-faq



CAN DIABETES BE CURED?

There is no cure for diabetes, but treatment is effective in most cases. Your veterinary surgeon has prescribed Caninsulin® from MSD Animal Health to help control the signs of diabetes such as excessive thirst, urinating more, eating more and weight loss. Some cats may go into 'remission', however the majority of cats will lead a normal happy life on Caninsulin.

TREATMENT

The main aim of treatment is to restore a good quality of life, not just for your cat but for you as well.

We can do this by stopping the signs of diabetes. Treatment also helps reduce the risk of diabetic complications. Whilst cats tend to escape some of the more serious complications seen in diabetic people, they will have a higher incidence of problems such as hind limb weakness.

Just as in people, diabetes can be effectively controlled by the injection of insulin, such as Caninsulin. In cats, insulin is generally given in the morning and evening.

Routine is the key to successfully treating diabetes and revolves around insulin injections, exercise, weight control and diet. Veterinary nurses are often a great source of advice on these matters.

MAKING SMALL CHANGES

Talk to your veterinary team about making some small changes which can really help manage your cat's diabetes:

- Discuss your cat's diet to make sure it's appropriate.
- If your cat is overweight, discuss a weight management plan.
- Discuss how to monitor your cat's diabetes at home.

For further information on treatment:
www.caninsulin.co.uk/cats/diabetes-managing



STARTING TREATMENT

As every cat's diabetes management plan is different, your veterinary surgeon will tailor the dose of insulin to your pet's needs. It is normal for the stabilisation of diabetes to take several months, although you should see improvements in your cat within a few weeks of commencing treatment.



Your veterinary team will show you everything you need to know about correctly giving Caninsulin. It is important that only Caninsulin 40iu syringes, Caninsulin VetPen cartridges and VetPen needles are used with Caninsulin insulin.

You can carry out some home monitoring, such as urine tests for glucose and ketones, or monitoring your cat's blood glucose level. Your vet can show you how to do this. These give an extra indication of how your pet is getting on in between visits to your vet. Always consult your vet straight away if you are unsure what to do or worried about the result you get.

Initially you will be in close contact with your veterinary team, as you and your cat adjust. However, this should reduce as your cat stabilises.

You should never change your pet's dose of insulin without first consulting with your vet.

VERY IMPORTANT

LOW BLOOD GLUCOSE ('HYPOGLYCAEMIA')

One complication you need to be prepared for is low blood sugar, known as hypoglycaemia. This can be fatal if left untreated.

By knowing the most common causes, you can help to avoid hypoglycaemia:

- Giving too much insulin
- Missing a meal
- A change in food, or amount of food, fed
- Infection or illness, such as diarrhoea or vomiting
- A change in the body's need for insulin
- Interaction with other drugs

SIGNS OF HYPOGLYCAEMIA CAN INCLUDE:

- | | |
|------------------|------------------------------|
| • Weakness | • Shivering/muscle twitching |
| • Unrest | • Fits |
| • Lack of energy | • Unconsciousness |

It is important to keep a source of glucose at home in case, such as glucose powder, honey or jam (check not sugar free).

When treating hypoglycaemia aim to give 1 gram of glucose per kilogram bodyweight. For example, a 4 kilogram cat would require approximately 1 level teaspoon of glucose/sugar.

For further information on an emergency:
www.caninsulin.co.uk/cats/diabetes-emergency



CATS ARE SPECIAL

Some cats can go into remission after treatment with insulin therapy. This means their pancreas starts to produce some insulin again. Hypoglycaemia may be the first sign your cat is going into remission.

WHAT TO DO IF YOU SEE SIGNS OF HYPOGLYCAEMIA

If your cat is conscious:

- Offer food immediately.
- If your cat does not eat straight away, syringe a small amount of glucose solution into the mouth and/or rub a glucose solution, honey or jam onto the gums. Take care not to get bitten.
- Call your vet for advice.

If your cat is unconscious or having a fit:

THIS IS A MEDICAL EMERGENCY – CALL YOUR VET IMMEDIATELY

In the meantime:

- Treat your cat – rub glucose powder, honey or jam onto your cat's gums.
- Your cat should respond quickly, within a couple of minutes.
- Once your cat has responded and is sitting up offer a small amount of food.
- **Never pour glucose solution into your cat's mouth in these circumstances; there is a risk it could go into the lungs.**

VERY IMPORTANT

TIPS ON LOOKING AFTER YOUR INSULIN

Insulin is a very fragile substance. Incorrect storage and handling of insulin may mean that it doesn't have the proper effect when you give it to your cat. Follow these rules with Caninsulin:

- Always keep Caninsulin cartridges/vials in the fridge stored at +2 to +8°C in an upright position.
- Do not allow Caninsulin to freeze – freezing destroys the insulin. Remember that items kept at the back of the fridge may freeze if they come into contact with the cooling plate.
- Always store unbroached Caninsulin in an upright position – insulin can be affected by substances in the rubber cap at the top of the cartridge/vial.
- Before first use, shake the cartridge/vial thoroughly until a uniform milky suspension is obtained. Foam on the surface of the suspension formed during shaking should be allowed to disperse before the Caninsulin is used. Before each injection, the Caninsulin should be gently mixed to maintain a uniform milky suspension. Particles can group together to form small lumps in insulin suspensions: do not use the product if visible small lumps persist after shaking thoroughly.
- Do not use a cartridge/vial of Caninsulin for longer than 28 days.

For further information on giving Caninsulin:
www.caninsulin.co.uk/cats/caninsulin



ADDITIONAL OWNER SUPPORT MATERIALS

Please visit www.caninsulin.co.uk for additional tools to support your care for your diabetic cat.

SUMMARY

When you find out that your cat is a diabetic it can be a daunting experience – there is a lot to learn in the first few weeks. However, in time, many owners establish a routine that becomes second nature to both them and their cats. Looking after a diabetic cat is a challenging, yet rewarding undertaking. It must be accepted that regular injections, a fixed routine and frequent visits to the vet will become a way of life.

However, with the right care, cats can enjoy a full and happy life after the diagnosis of diabetes.



ADMINISTERING CANINSULIN USING SYRINGES

Your vet or veterinary nurse will show you how to inject your cat with a syringe. Full instructions are provided in the package leaflet.



Draw up into the syringe slightly more insulin than needed. Expel any air bubbles by tapping the upright syringe with your finger and then gently press the plunger until the correct dose remains.



Pull the skin of the scruff of the neck/back upwards and form a depression with your forefinger.



Insert the injection needle at right angles gently through the skin in the depression you have formed. Gently draw back the syringe plunger and if blood appears remove the needle from the skin and start again with a fresh syringe (this will very rarely happen). Release your hold on the skin. Slowly depress the plunger.

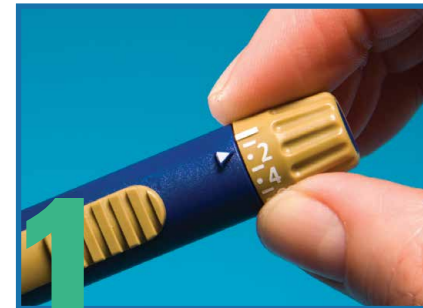
IMPORTANT: ONLY USE 40IU SYRINGES DESIGNED FOR USE WITH CANINSULIN

For further information on using a syringe visit
www.caninsulin.co.uk/cats/caninsulin



ADMINISTERING CANINSULIN USING VETPEN

Your vet or veterinary nurse will show you how to inject your cat with VetPen. Full instructions are provided in the package leaflet.



Ensure the arrow on the VetPen body points to the start line on the dose selector. Then dial up the number of units of insulin required as per your veterinary surgeon's direction. If you over-dial, never wind back the dose selector. Expel the insulin and draw up the correct dose.



Pull the skin of the scruff of the neck/back upwards and form a depression with your forefinger.



Insert the needle of VetPen at right angles gently through the skin in the depression you have formed. Then push the release button toward the pen needle and hold it in place until the start line on the dose selector returns to the arrow on the pen body. Count to a minimum of 5 seconds before removing the needle from the skin.

IMPORTANT: ONLY USE WITH CANINSULIN CARTRIDGES AND VETPEN NEEDLES

For further information on VetPen visit
www.caninsulin.co.uk/cats/vetpen



THE VETPEN ADVANTAGE

The VetPen helps make administering Caninsulin easier for you and more comfortable for your pet and is an ideal method of insulin delivery for cats.

Key benefits of using VetPen include:

- Less pet discomfort and reduced injection pain
- Easy dial-up dosing
- Easy to handle for all users including other pet-carers
- Adapters to make handling easier
- Improved user safety, dose accuracy and consistency of dosing

Further information on the use of VetPen is available from our website www.caninsulin.co.uk/cats/vetpen. The QR codes below link to further VetPen resources on the website.



For further information on VetPen including a step-by-step video guide: www.caninsulin.co.uk/cats/vetpen



For cat diabetes FAQs: www.caninsulin.co.uk/cats/diabetes-faq



USING VETPEN

HOW LONG WILL MY CANINSULIN VETPEN 2.7ML CARTRIDGE LAST?

IU per injection	IU per day based on twice daily dosing	No. of days cartridge will last
0.5	1	28*
1	2	28*
1.5	3	28*
2	4	27
2.5	5	21
3	6	18
3.5	7	15
4	8	13
4.5	9	12
5	10	10
5.5	11	9
6	12	9

IU per injection	IU per day based on twice daily dosing	No. of days cartridge will last
6.5	13	8
7	14	7
7.5	15	7
8	16	6
9	18	6
10	20	5
11	22	4
12	24	4
13	26	4
14	28	3
15	30	3
16	32	3

* Cartridge should be discarded after 28 days and replaced with a new one.

STORAGE ADVICE

VetPen should always be stored or carried with the needle removed and the pen cap on. Once loaded with a cartridge, VetPen should be stored in the fridge at +2 to +8°C. The loaded VetPen can be stored on its side.

Always keep Caninsulin cartridges and vials in the fridge stored at +2 to +8°C in an upright position. Do not freeze. Protect from light.



SMART MONITORING OPTIONS

Understanding the response to treatment guides gradual adjustment of the dose of insulin to your pet’s needs.

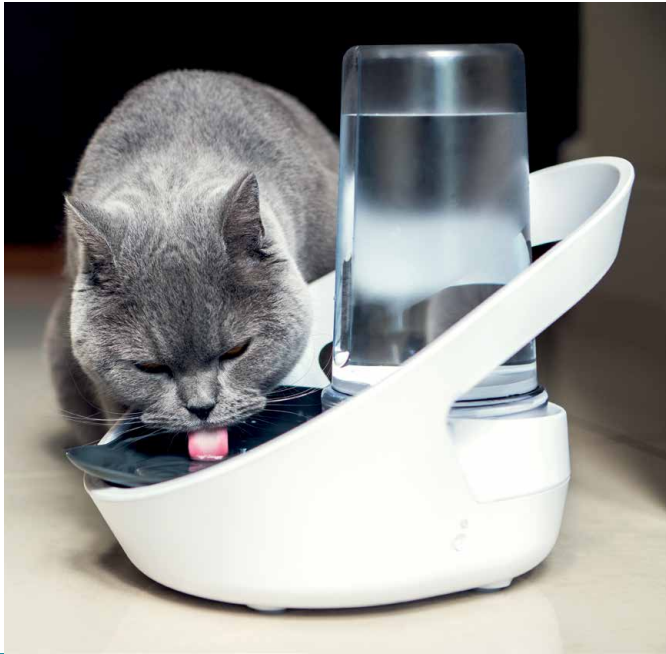
Your vet may advise further blood and urine tests to help plan these adjustments, but an excellent guide to improving control is the reduction in drinking and appetite to more normal levels. Being able to carefully measure water intake as well as manage and measure food intake can therefore prove valuable in establishing good control of diabetes. Depending on your specific needs the following pet monitoring products may also be helpful.

FELAQUA® CONNECT

Felaqua Connect is a smart water delivery system that can precisely track a pet’s daily water intake via an app. Suitable for cats that drink indoors, individual pets are recognised by their existing implanted microchip or RFID collar tag.

Normalisation of water intake is a primary goal in the control of diabetes. When used as the sole water source for a diabetic animal, Felaqua Connect can provide detailed insights into their drinking patterns, potentially reducing the need for further testing.

For further details:

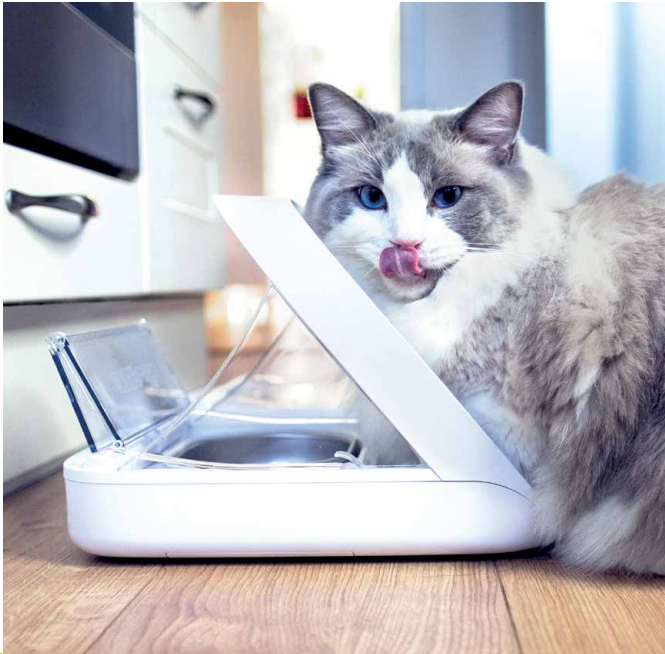


SUREFEED® MICROCHIP PET FEEDER CONNECT

SureFeed Microchip Pet Feeder Connect is suitable for use by both cats and smaller dogs. Triggered by reading their existing implanted microchip or RFID collar tag (included), it can be programmed to only open for one (or more) specified pets. It allows specific diets to be monitored and fed in a controlled way with a choice of one or two bowls. Animal identity, food intake and the timing of feeding is recorded through the day.

Suitable for single or multi-pet households, this feeder is ideal to ensure a specified amount and type of diet can be made available in an individualised way.

For further details:



TRACKING IMPROVEMENT

Recording the changes you see in your cat's health is an essential guide to helping treatment decisions.

Here the choice is logging your observations in a simple Diabetes Diary that we can provide, or alternatively, MSD's Pet Diabetes Tracker is a free app that helps you keep track of your pet's diabetes from the convenience of your smartphone.

The app enables you to:

- Track key health information
- Record test results such as blood glucose
- Set reminders
- Email your pet's health records to the practice



Simply download the MSD Diabetes Tracker app today from the App Store or Google Play to get started!





Reference: 1. Niessen S.J.M, Powney E, Huitam J, Niessen A.P.M, Pion P.D, Shaw J.A.M, and Church D.B. Evaluation of quality-of-life tool for cats with diabetes mellitus, J Vet Intern Med 2010; 24:1098-1105.

This information is provided by MSD Animal Health UK Limited, the manufacturer of Caninsulin®.

Caninsulin® contains porcine insulin. **POM-V**

Further information is available from the SPC, datasheet or package leaflet.

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Advice should be sought from the medicine prescriber.

Use Medicines Responsibly.

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