NUTRITIONAL MANAGEMENT
FOR FELINE LUTD

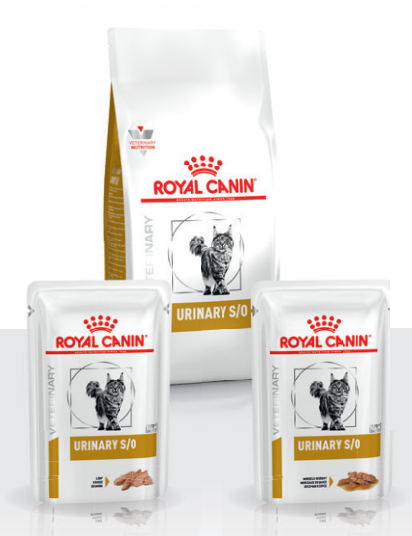
Check with local regulatory before use

ROYAL CANIN®
INCREDIBLE IN EVERY DETAIL

DISSOLUTION OF PURE STRUVITE CRYSTALS/STONES &
PREVENTION OF CALCIUM OXALATE OR
STRUVITE CRYSTALS/STONES

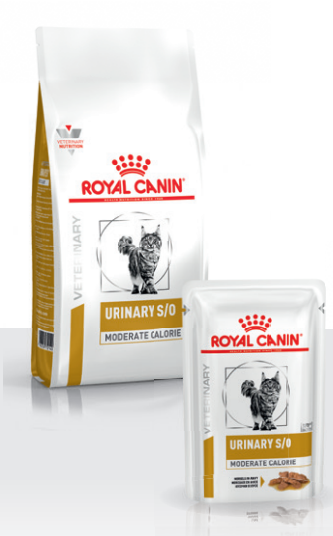
SINGLE
CONDITION

IDEAL WEIGHT



URINARY S/O

NEUTERED OR PRONE TO WEIGHT GAIN



URINARY S/O
MODERATE CALORIE

WINDIES.

NUTRITIONAL MANAGEMENT FOR FELINE DEGENERATIVE DISEASES

VITAL SUPPORT

Check with local regulatory before use

ROYAL CANIN®
INCREDIBLE IN EVERY DETAIL

KIDNEY DISEASE

CAT SCREENED AT RISK*

CKD IRIS STAGE 1 WITHOUT PROTEINURIA

No tube-feeding

Tube-feeding

SINGLE CONDITION

Different aromatic profiles and textures to fit each animal preference

MOBILITY ISSUES

EARLY RENAL | RENAL | RENAL SPECIAL | RENAL SELECT | RENAL WITH BEEF | RENAL WITH CHICKEN | RENAL WITH FISH

RENAL LIQUID

MOBILITY

WINDIES.

NUTRITIONAL MANAGEMENT
FOR FELINE DERMATOLOGICAL CASES

DERMATOLOGY

ROYAL CANIN®
INCREDIBLE IN EVERY DETAIL

CASE HISTORY AND CLINICAL EXAMINATION IN CATS WITH CHRONIC PRURITUS

DERMATOSIS & HAIR LOSS

INFECTIONS & EXTERNAL PARASITES
(bacterias, yeasts, fleas, cheyletiella, harvest mites, lice, otodectes, sarcoptes...)

SUSPICION
ALLERGIC SKIN DISEASE
(after ruling out other causes of chronic pruritus)

Check with local regulatory before use

NON RESOLUTION

DIAGNOSIS
ELIMINATION TRIAL

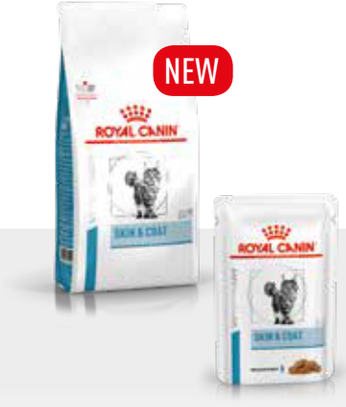
EXTENSIVELY HYDROLYZED*

RESOLUTION
(and worsening after re-challenge)

CONFIRMATION
ENVIRONMENTAL ATOPY

CONFIRMATION
ADVERSE FOOD REACTION

+ ADAPTED MEDICAL TREATMENT, IF NEEDED



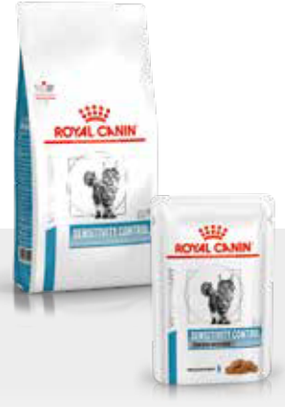
SKIN & COAT

EXTENSIVELY HYDROLYZED*

ANALLERGENIC

PARTIALLY HYDROLYZED*

HYPOALLERGENIC



SENSITIVITY CONTROL

*Hydrolysis level for the major protein source.

WINDIES.

NUTRITIONAL MANAGEMENT FOR FELINE GASTROINTESTINAL TRACT CASES

GASTROINTESTINAL TRACT

Check with local regulatory before use

ROYAL CANIN®
INCREDIBLE IN EVERY DETAIL

CONSTIPATION*

ASSOCIATED WITH CHRONIC/SEVERE CONSTIPATION?

- Yes → GASTROINTESTINAL FIBRE RESPONSE
- No → GASTROINTESTINAL HAIRBALL

HAIRBALLS*

→ GASTROINTESTINAL HAIRBALL

EMACIATION, MALNUTRITION, ANOREXIA, NEED OF TUBE-FEEDING*

ADULT

- No tube-feeding → GASTROINTESTINAL
- Tube-feeding → RECOVERY

RECOVERY LIQUID

KITTEN → GASTROINTESTINAL KITTEN

DIARRHEA / VOMITING*

ADULT

UNKNOWN ORIGIN OR DISEASE WITH NO SPECIFIC NUTRITIONAL CONSTRAINT

- Ideal weight/ underweight → GASTROINTESTINAL
- Overweight → GASTROINTESTINAL MODERATE CALORIE

KNOWN ORIGIN: DISEASE REQUIRING SPECIFIC NUTRITIONAL CHANGE

- Need for fat intake reduction (e.g: pancreatitis) → GASTROINTESTINAL MODERATE CALORIE
- Adverse food reaction / Need of hydrolysed protein diet → For further information, please refer to the dermatology range.

LIVER DISEASE

- Acute / Feline Hepatic Lipidosis → GASTROINTESTINAL + RECOVERY
- Chronic → HEPATIC

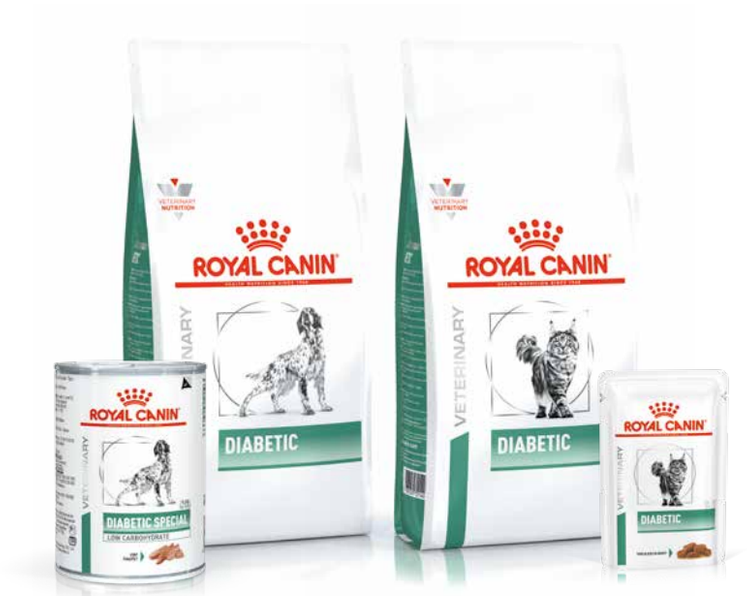
*THESE SYMPTOMS CAN BE RELATED TO EXTRA GI TRACT CAUSES, WHICH MAY HAVE AN ADAPTED ROYAL CANIN ® DIET (E.G: FOR CHRONIC KIDNEYS DISEASE, ROYAL CANIN ® RENAL IS RECOMMENDED)

WINDIES

UNCOVER THE CLINICAL BENEFITS OF ROYAL CANIN® DIABETIC DIET

WEIGHT MANAGEMENT

ROYAL CANIN®
INCREDIBLE IN EVERY DETAIL



SPECIFIC FORMULA TO HELP IN THE MANAGEMENT OF POST-PRANDIAL BLOOD GLUCOSE IN DIABETIC PETS

HIGH PROTEIN CONTENT. MAINTENANCE OF MUSCLE MASS IS ESSENTIAL IN DIABETIC PETS

FORMULA THAT CONTAINS A REDUCED LEVEL OF STARCH

BENEFITS OF ROYAL CANIN® VETERINARY HEALTH NUTRITION DIABETIC

- ✓ ROYAL CANIN® **DIABETIC** is specifically formulated to help in the **management of glycemia**.
- ✓ **DIABETIC** has a **low starch** content. This is important, as dietary starch increases the postprandial blood glucose response.[10,11]
- ✓ **DIABETIC**'s macronutrient profile supports **glucomodulation**. A body of research has shown that **low carbohydrate and high protein** diets, in combination with insulin, help manage Diabetes Mellitus[12,13,14,15] and may allow for the insulin dosage to be reduced.[13] When a low carbohydrate high protein diet is combined with aggressive insulin therapy, **some cats can even experience full remission** of clinical signs associated with Diabetes Mellitus and no longer require insulin.[12,13,14]
- ✓ **DIABETIC** has a high protein content. A high-protein diet not only contributes to glucomodulation, but also helps to **maintain lean muscle mass** and optimize body composition during weight loss and in ideal weight pets.[1,2,16]
- ✓ **DIABETIC** has an **adapted fibre blend**. A specific blend of dietary fibre can improve glycemic control, possibly by slowing down gastric emptying, reducing the rate of starch degradation and help flattening the post-prandial glucose curve in dogs.[17]
- ✓ Due to its **moderate levels of fat and energy** content, **DIABETIC** meets the needs of patients with various caloric requirements, up to a BCS of 6/9.
- ✓ **DIABETIC** is **highly palatable**, which is important to help ensure consistent intake, especially during stabilization of the diabetic patient.
- ✓ **DIABETIC**'s **synergistic antioxidant complex** helps to counter the negative effects of free radicals.

GOALS FOR NUTRITIONAL MANAGEMENT OF DM[3,4]

- **Ensure daily consistent food intake to improve glycemic control.**
  A highly palatable diet helps to ensure full consumption of each meal.
  Mixed feeding (feeding of dry and wet food) allows to tailor for individual preferences in cats and dogs. To promote consistent glycemic control, each day, the same amount of dry and wet food must be fed.
- **Support glucomodulation through a diet with an adapted formula.**
  High protein, low starch and adapted fibre levels help to minimize post-prandial hyperglycemia.
- **Aim for a healthy body weight to improve insulin sensitivity.**
  Weight loss in obese patients can reduce insulin resistance and has been linked to diabetic remission in cats.

1. Blanchard et al. Rapid weight loss with a high-protein low-energy diet allows the recovery of ideal body composition and insulin sensitivity in obese dogs. J Nutr. 2004;134(8):2148S-2150S.
2. Hoenig et al. Insulin sensitivity, fat distribution, and adipocytokine response to different diets in lean and obese cats before and after weight loss. Am J Physiol Regul Integr Comp Physiol. 2007;292(1):R227-R234.
3. Behrend et al. AAHA diabetes management guidelines for dogs and cats. J Am Anim Hosp Assoc. 2018;54(1):1-21.
4. Sparkes et al. ISFM consensus guidelines on the practical management of diabetes mellitus in cats. J Feline Med Surg. 2015;17(3):235-250.
5. Brooks et al. AAHA weight management guidelines for dogs and cats J Am Anim Hosp Assoc. 2014:1-11.
6. German. Weight management in obese pets: The tailoring concept and how it can improve results. Acta Vet Scand. 2016;58(1):3-9.
7. German et al. Long-term follow-up after weight management in obese dogs: The role of diet in preventing regain. Vet J. 2012;192(1):65-70.
8. Deagle et al. Long-term follow-up after weight management in obese cats. J Nutr Sci. 2014;3:e25.
9. German. Obesity prevention and weight maintenance after loss. Vet Clin North Am Small Anim Pract. 2016;46(5):913-929.
10. Nguyen et al. Glycemic and insulinemic responses after ingestion of commercial foods in healthy dogs: influence of food composition. J Nutr. 1998;128(12 Suppl):2654S-2658S.
11. Hewson-Hughes et al. The effect of dietary starch level on postprandial glucose and insulin concentrations in cats and dogs. Br J Nutr. 2011;106(S1):S105-S109.
12. Frank et al. Use of a high protein diet in the management of feline diabetes mellitus. Vet Ther. 2001;2(3):238-246.
13. Marshall and Rand. Insulin glargine and a high protein - low carbohdyrate diet are associated with high remission rates in newly diagnosed diabetic cats. ACVIM. 2004;52:401.
14. Bennett et al. Comparison of a low carbohydrate–low fiber diet and a moderate carbohydrate–high fiber diet in the management of feline diabetes mellitus. J Feline Med Surg. 2006;8:73-84.
15. Weaver et al. Use of glargine and lente insulins in cats with diabetes mellitus. J Vet Intern Med. 2006:234-238.
16. Wakshlag et al. Effect of dietary protein on lean body wasting in dogs: Correlation between loss of lean mass and markers of proteasome-dependent proteolysis. J Anim Pysiol a Anim Nutr 2004;87 (11-12):408-420.
17. Graham et al. Canned high fiber diet and postprandial glycemia in dogs with naturally occurring diabetes mellitus. J Nutr. 1994;124:2712S-2715S.

WINDIES.

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GUIDE TO NUTRITIONAL MANAGEMENT OF DIABETES MELLITUS IN CATS AND DOGS

ROYAL CANIN® INCREDIBLE IN EVERY DETAIL

PET - NEWLY DIAGNOSED/NOT YET STABILIZED DIABETES MELLITUS (DM)

✔ Initiate Insulin & assess blood glucose (BG)

Diabetic patients must be **regularly monitored** for control of clinical signs and change in body weight. Any change in diet or in caloric allocation may influence **glycemic control** and requires assessment of **insulin** and blood **glucose.**

STABILISATION

with **DIABETIC**

CASE DEPENDENT, 4-12 WEEKS

INDEPENDENT OF BODY CONDITION SCORE (BCS)

DIABETIC's nutritional benefits and **high palatability** help to **ensure a consistent food intake** and to stabilize glucose levels.

BODY CONDITION SCORE (BCS)

BCS **≤ 6/9**

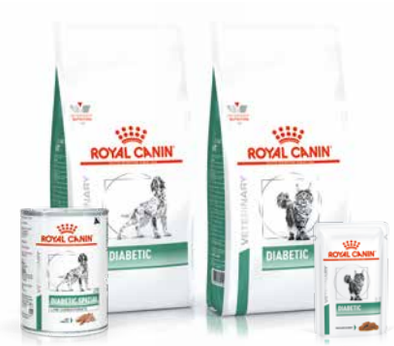
WEIGHT MAINTENANCE

with **DIABETIC**

FOR THE PET'S LIFETIME*

Maintenance of **ideal body weight** helps maintain **lean body mass** and contributes to **glycemic control.**[1,2] Caloric intake recommendations should be adjusted based on individual history to achieve ideal body condition.[3]

- **BCS ≤ 3/9:** increase caloric intake by 10%, reassess after 2 weeks. Adjust as needed.
- **BCS 4-5/9:** maintain current caloric intake.
- **BCS 6/9 and weight loss since start of diet:** maintain current caloric intake.
- **BCS 6/9 and no weight loss since start of diet, or BCS > 6/9:** consider transition to SATIETY and start WEIGHT LOSS.



PET'S LIFETIME* →

BCS **≥ 7/9**

Once clinical signs have been controlled, **weight loss** is critical for obese diabetic pets to **improve insulin sensitivity** and to promote diabetic remission in cats.[3,4]

TRANSITION

from **DIABETIC**

to **SATIETY WEIGHT MANAGEMENT**

2 WEEKS

WEIGHT LOSS

with **SATIETY WEIGHT MANAGEMENT**

3 MONTHS OR AS REQUIRED

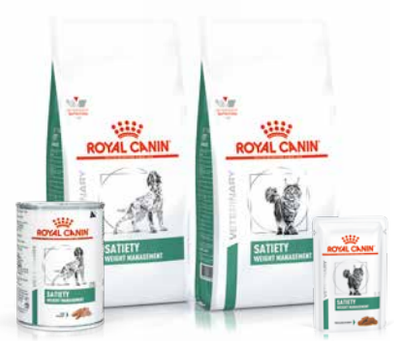
SATIETY **feeding recommendations** provide a **good starting point for weight loss.** Then, adjust caloric allocation based on the individual's response.[5] Success rate of weight loss programs decreases after 12 weeks.[6] **Celebrate success achieved!** Next, review the target body condition score. If more weight loss is targeted, a weight maintenance phase of a few weeks between weight loss phases may increase owner compliance.

WEIGHT MAINTENANCE

with **SATIETY WEIGHT MANAGEMENT**

FOR THE PET'S LIFETIME* OR BACK TO WEIGHT LOSS, IF REQUIRED

After successful weight loss, patients are at **risk of weight regain.**[7,8] SATIETY **can reduce this risk** compared to a maintenance diet and is therefore recommended in the long term.[7,9] If patients lose too much weight and struggle to maintain a **BCS of 5/9 with SATIETY, transition to DIABETIC** is recommended.



*The diabetic patient should be regularly assessed for concurrent disease. If indicated, the nutritional management plan has to be revised.

WINDIES.