

CANINE DM DIABETES MANAGEMENT™

Complete dry dietetic pet food for adult dogs for the regulation of glucose supply (diabetes mellitus).

RECOMMENDED FOR & NOT RECOMMENDED FOR

- ✓ Diabetes mellitus
- ✓ Insulin-resistant dogs
- ✓ Weight maintenance after weight loss
- ✗ Not suitable during pregnancy, lactation and growth
- ✗ Chronic illness necessitating high energy intake



3 kg and 12 kg

KEY BENEFITS



Glucose control

Formulated for the nutritional management of diabetes



Low level of carbohydrates

to help limit post-prandial hyperglycaemia



Amylase inhibitor

Contains amylase inhibitor (phaseolamin) from white bean extract to help reduce carbohydrate digestion

ADDITIONAL BENEFITS & CHARACTERISTICS

Helps reduce blood glucose post-prandial fluctuation

Contains selected sources of dietary fibre and low glycaemic index carbohydrate sources

Helps reduce oxidative stress commonly found in diabetic patients

Contains antioxidants including vitamin E and C

Helps maintain joint mobility

Thanks to a source of chondroitin and glucosamine

Supports patient compliance

Thanks to good acceptance

COMPOSITION

Dried poultry protein, barley[#], corn[#], soya meal[#], pea hulls[#], corn protein meal[#], pea protein, pork fat, digest, dried beet pulp[#], cellulose, fish oil, minerals, white bean extract (0.1%, source of amylase inhibitor).

[#] Carbohydrate sources.

KEY NUTRIENT VALUES*

Moisture	7.5%
Protein	37.0%
Fat	12.0%
- Omega-6 fatty acids	2.1%
- Omega-3 fatty acids	0.4%
Carbohydrate	29.5%
- Starch	18.5%
- Total sugars	1.5%
Crude fibre	7.0%
Crude ash	7.0%
Vitamin E	481 IU/kg
Metabolisable energy (ME) [†]	342 kcal/100g

* Typical analysis in the final product as fed.

[†] Calculated following NRC 2006 equations.

FEEDING GUIDELINES

In controlled diabetics it is crucial that the transition from the dog's current diet to PURINA® PRO PLAN® VETERINARY DIETS DM Diabetes Management™ is under careful veterinary supervision and that the blood glucose levels are closely monitored as insulin requirements may be reduced with this diet. The recommended period of use for the regulation of glucose supply is initially up to 6 months but this diet is complete and balanced for long term use under veterinary supervision. It is recommended that a veterinary surgeon's opinion be sought before use or before extending the period of use.

ADULT

Body weight (kg)	Daily feeding quantity (g/day)
2.5	75
5	120
10	190
15	250
25	350
35	440
45	520
70	700

For dogs over 70kg: for each additional 5kg of body weight, feed an additional 30g of dry pet food. Fresh clean drinking water should always be available.

The prevalence of diabetes mellitus is increasing: one study estimated a prevalence of 0.58% in dogs admitted to veterinary hospitals, a three-fold increase over a period of 29 years¹.

As some scientific data shows, feeding dogs exclusively balanced commercial dog food, keeping them in an ideal BCS, avoiding treats, and early spaying (in females), may be protective factors against diabetes mellitus development².

THE ROLE OF DIET IN THE MANAGEMENT OF CANINE DIABETES MELLITUS

Optimal management of canine diabetes mellitus always involves daily insulin therapy and a consistent schedule of insulin injections, meals and exercise. The primary goal of therapy is to maintain blood glucose concentrations as close to normal as possible, thus minimising clinical signs. Additional goals include achieving and maintaining normal body weight (as obesity contributes to insulin resistance), and managing complications of diabetes such as hypercholesterolaemia and other lipid changes, and oxidative stress. Strategies with a low hypoglycaemia risk and decreased impact on owner lifestyle are desirable, and diet can be a key element within this³.

The following dietary characteristics are recommended to help manage the disease³⁻⁵.

A diet designed to help minimise post-prandial increases in blood glucose.

- Addition of alpha amylase inhibitors is clinically proven to reduce post-prandial glycaemic rise in dogs⁶
- Low GI complex carbohydrates such as barley and soya lead to a flatter more optimal post-prandial blood glucose curve than "High GI" carbohydrates such as rice
- Both soluble and insoluble fibre help reduce post-prandial hyperglycaemia
- Mixed fibres (maize, barley, soya, pea fibre) are better at controlling post-prandial hyperglycaemia in dogs than insoluble fibre (cellulose) alone⁷
- The diet should be low in simple carbohydrates and sugars
- Feeding a complete and balanced diet fed at consistent times in consistent quantities is crucial to maximise glycaemic control (for example, 50% of the main meal ration fed in two equally sized meals at the same time each day). Ensuring the diet is highly palatable is key to ensuring predictable intake and should be a priority for appropriate diet selection⁸.

1. Niessen SJM, et al. (2017) The Big Pet Diabetes Survey: Perceived Frequency and Triggers for Euthanasia. *Vet Sci.* May 14;4(2):27.
2. Poppl AG, et al. (2017) Canine diabetes mellitus risk factors: A matched case-control study. *Res Vet Sci.* 114: 469-73.
3. Rand JS, et al. (2004) Canine and feline diabetes mellitus: Nature or nurture. *J Nutr.* 134: 2072-80.
4. Jackson JR, et al. (1996) Effects of diets on post-prandial blood glucose in dogs. Purina Nutrition Forum proceedings.
5. Nelson RW, et al. (1991) Effects of dietary fibre supplementations on glycaemic control in dogs with alloxan induced diabetes mellitus. *Am J Vet Res.* 52: 2060-66.
6. Layer P, et al. (1986) Effects of decreasing intraluminal amylase activity on starch digestion and post-prandial gastrointestinal function in humans. *Gastroenterology.* 91:41-8.
7. Graham PA, et al. (1994) Canned high fibre diet and post-prandial glycemia in dogs with naturally-occurring diabetes mellitus. *J Nutr.* 124: 2712-15.
8. Fleeman LM, et al. (2001) Management of Canine Diabetes, *Veterinary Clinics of North America: Small Animal Practice.* Vol 31, Issue 5, 855-80.

AMYLASE INHIBITOR FROM WHITE BEAN EXTRACT IS CLINICALLY PROVEN TO REDUCE POST-PRANDIAL GLYCAEMIC RISE IN DOGS

A placebo-controlled study in dogs found that those taking a phaseolamin (alpha-amylase inhibitor) enriched diet had substantially reduced post-prandial plasma glucose vs. those eating a control diet (containing the same level of dietary carbohydrates but no phaseolamin)⁹.



9. Purina study; data on file.

* CLINICAL ADVANTAGES WITH THE USE OF CANINE DM DIABETES MANAGEMENT

PURINA® PRO PLAN® VETERINARY DIETS DM Diabetes Management™ is specifically designed to meet the precise needs of dogs with diabetes mellitus:

Low carbohydrates – especially low in starch.



Complex (low glycaemic index) carbohydrates (barley, maize and soya).

No rice or simple sugars known to cause a spike in the blood glucose curve.

Selected sources of dietary fibres to help improve glycaemic control.

Contains white bean extract – a source of alpha-amylase inhibitor

(phaseolamin) from white bean extract clinically proven to limit carbohydrate absorption in dogs, help reduce carbohydrate digestion and reduce post-prandial plasma glucose.



Vit C

Vit E

Added antioxidant vitamins to help reduce oxidative stress commonly found in diabetic patients.

High protein diet to help support satiety and help dogs maintain optimal body weight after weight loss.



Other relevant literature:

- Barret ML, *et al.* (2011) A proprietary alpha-amylase inhibitor from white bean (*Phaseolus vulgaris*): A review of clinical studies on weight loss and glycaemic control. *Nutr J.* **10**: 24.
- Udani J, *et al.* (2007) Blocking carbohydrate absorption and weight loss: a clinical trial using a proprietary fractionated white bean extract. *Altern Ther Health Med.* **12**: 32-7.