CANINE HA HYPOALLERGENIC™

Complete dietetic pet food for puppies* and adult dogs for the diagnosis and management of food allergies and intolerances, with hydrolysed protein and selected carbohydrate sources.

RECOMMENDED FOR

- ✓ Hydrolysed elimination diet for food trials
- ✓ Long-term management of food allergy
- ✓ Dermatitis and/or gastroenteritis associated with food allergy
- ✓ Inflammatory bowel disease (IBD)
- ✓ Food intolerance
- ✓ Exocrine pancreatic insufficiency (EPI)**
- ✓ Hyperlipidaemia**
- ✓ Lymphangiectasia**
- ✓ Malabsorption**
- ✓ Pancreatitis**
- ✓ Protein losing enteropathy
- ✓ Chronic diarrhoea (associated with food intolerance)
- ✓ Small Intestinal Bacterial Overgrowth (SIBO)**
- ✓ Liver disease not associated with encephalopathy

400 g 3 kg and 12 kg

KEY BENEFITS

Single hydrolysed protein
with low molecular weight to help avoid allergic responses

Purified carbohydrate sources
to help avoid allergic responses

With omega-3 fatty acids
to help maximise the natural anti-inflammatory processes

ADDITIONAL BENEFITS & CHARACTERISTICS

Provides a lipid energy source which is much easier to digest and absorb
Contains MCFA (medium-chain fatty acids)**

Supports dogs with compromised GI function by ensuring improved nutrient absorption
Thanks to high protein, carbohydrate and fat digestibility

Helps maintain the epidermal integrity
Enhanced levels of zinc, omega-3 and -6 fatty acids and vitamin A

Helps ensure long-term compliance
Good palatability

Formulated for dogs of all life stages including puppies
Suitable for nutritional management during growth from 14 weeks onwards and maintenance

* Only suitable for puppies >14 weeks of age ** Dry formula only.

COMPOSITION (DRY)

Corn starch#, hydrolysed soya protein##, minerals, coconut oil, sugar#, rapeseed oil, cellulose, glycerine (from vegetable origin), soya oil, fish oil.

Purified carbohydrate sources.
Hydrolysed protein source.

COMPOSITION (CAN)

Pea starch#, cellulose#, hydrolysed soya protein##, oils and fats (coconut oil, soybean oil, fish oil), minerals, various sugars#.

Carbohydrate sources.
Hydrolysed protein source.

KEY NUTRIENT VALUES*	Dry	Wet
Moisture	8.0%	74.3%
Protein	21.0%	6.2%
Fat - Omega-6 fatty acids - Omega-3 fatty acids - Medium chain fatty acids - EPA + DHA	10.5% 2.0% 0.5% 1.3% 0.10%	3.7% 0.89% 0.17% - 0.066%
Carbohydrate	51.5%	11.6%
Crude fibre	2.0%	2.1%
Crude ash	6.0%	2.1%
Taurine	1986 mg/kg	1204 mg/kg
Zinc	149 mg/kg	37 mg/kg
Vitamin A	21920 IU/kg	5309 IU/kg
Vitamin E	301 IU/kg	138 IU/kg
Metabolisable energy (ME)[1]	364 kcal/100g	94 kcal/100g

* Typical analysis in the final product as fed.
[1] Calculated following NRC 2006 equations.

FEEDING GUIDELINES

The initial recommended period of use is 3 to 8 weeks. If signs of allergy or intolerance resolve, the diet can initially be fed up to one year, although it is complete and balanced for long term use where appropriate. It is recommended that a veterinarian's opinion be sought before use and before extending the period of use. Suitable for puppies over 14 weeks of age.

PUPPY GROWTH – AGE IN MONTHS

Adult weight (kg)	Dry				Wet			
	4	6	9	12	4	6	9	12
	Daily feeding quantity (g/day)				Daily feeding quantity (can/day)			
2.5	95	95	85	75	1	1	¾	¾
5	145	150	135	120	1 ⅓	1 ½	1 ⅓	1 ¼
10	215	230	200	195	2	2 ¼	2	2
15	280	300	265	250	2 ¾	3	2 ⅔	2 ⅓
25	360	455	415	360	3 ½	4 ⅓	4	3 ½
35	420	485	560	455	4	4 ¾	5 ½	4 ½
45	440	495	585	500	4 ⅓	4 ¾	5 ¾	5
70	580	705	840	700	5 ¾	7	8 ¼	6 ¾

ADULT MAINTENANCE

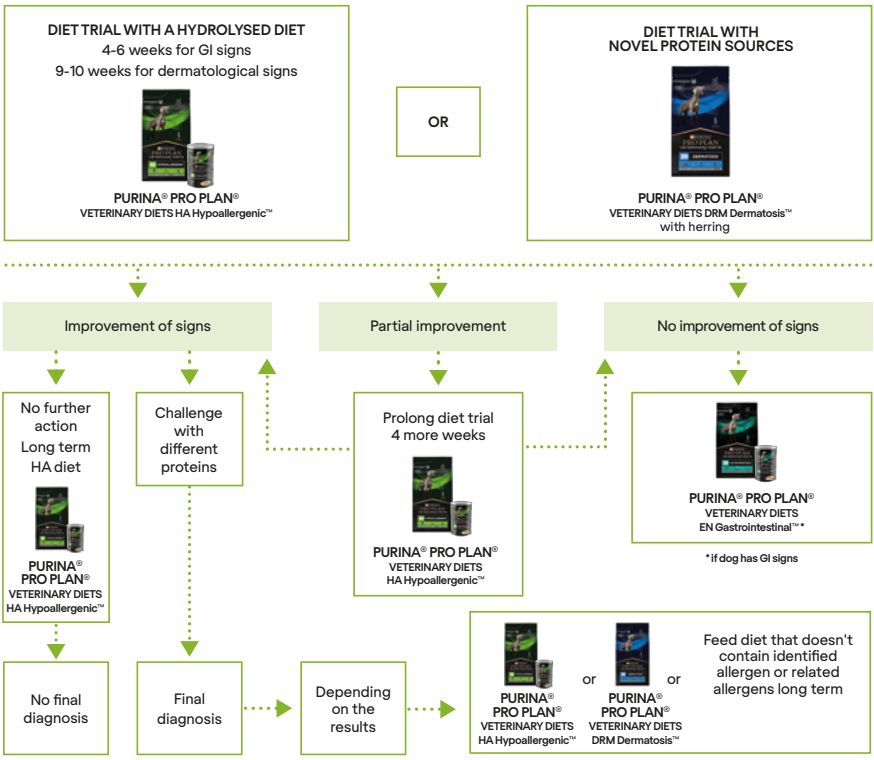
Body weight (kg)	Daily feeding quantities		Dry + Wet (mixed feeding)	
	Dry (g/day)	Can/day	Dry (g/day)	Can/day
2.5	70	¾	35	⅓
5	110	1	60	½
10	175	1 ¾	75	1
15	230	2 ⅓	130	1
25	325	3 ¼	225	1
35	410	4	310	1
45	485	4 ¾	385	1
70	650	6 ½	450	2

For dogs over 70 kg: for each additional 5 kg of body weight, feed an additional 30g of pet food or 1/3 can.
When feeding dry and wet Canine HA, for each addition of 200g wet, reduce by 50g dry kibble.

The diagnosis of cutaneous adverse food reactions (CAFRs) in dogs relies on the performance of dietary restriction-provocation trials. Knowing the most common offending allergens in these species helps determine which food challenges should be performed first to faster confirm the diagnosis of CAFR[1]. As published by Olivry & Mueller (2017) the prevalence of CAFR in dogs is around 1 to 2% and among those with skin diseases, it ranges between 0 and 24%. The range of CAFR prevalence is similar in dogs with pruritus (9 to 40%), those with any type of allergic skin disease (8 to 62%) and in dogs diagnosed with atopic dermatitis (9 to 50%)[2].

A novel protein or hydrolysed diet containing a limited antigen content may help minimise adverse food reactions (AFRs) and be helpful both in the diagnosis and management of AFRs. It is important to note that the only way to accurately diagnose an AFR is an elimination diet trial; serology testing for food-specific IgE and IgG shows low repeatability and has a highly variable accuracy[1], and thus should not be routinely recommended.

DIAGNOSING FOOD ALLERGIES OR INTOLERANCES



1. Mueller RS, *et al.* (2016) Critically appraised topic on adverse food reactions of companion animals (2): common food allergen sources in dogs and cats. *BMC Vet Res.* **12**: 9.
2. Olivry T, *et al.* (2017) Critically appraised topic on adverse food reactions of companion animals (3): prevalence of cutaneous adverse food reactions in dogs and cats. *BMC Vet Res.* **13**: 51.
3. Carlotti D. (2017) Food Allergy in Dogs and Cats: Current Dermatological Perspectives.

Food allergy (food hypersensitivity) is widely recognised in dogs, and results in clinical signs affecting the skin, gastrointestinal tract, or both. Food allergy is reported to be responsible for to up to 20-25% of cases of non-seasonal allergic dermatoses, and for many cases of gastroenteritis.

Food allergens are almost exclusively proteins or glycoproteins and in dogs the most commonly reported allergens are: beef, dairy products, chicken, and wheat[1]. The size and structure of the protein helps determine its ability to induce hypersensitivity:

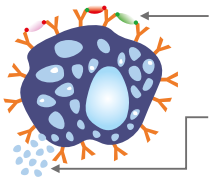
- Most allergens have a molecular weight above 20 000 Daltons – large enough to have sufficient complexity to interact with antibodies or T-cell receptors.
- Proteins also have to be small enough to pass through the mucosal barrier and are usually less than 70 000-80 000 Daltons.

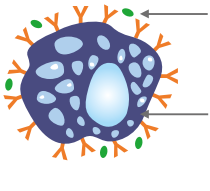
The best approach to the diagnosis of canine food allergy is to use a food where the potential allergens have been broken down and denatured to render them harmless and non-immunologically reactive by hydrolysis. Excessive hydrolysis of proteins in hypoallergenic diets is not necessary as it might contribute to the risk of osmotic diarrhoea. It is essential for an effective food trial that the diet used is fed exclusively.

CLINICAL ADVANTAGES WITH THE USE OF CANINE HA HYPOALLERGENIC™

PURINA® PRO PLAN® VETERINARY DIETS HA Hypoallergenic™ provides:

- A single protein source hydrolysed to **low molecular weights** – hydrolysing proteins to less than 18 000 Daltons helps render them immunologically inert, and alters their structure to further reduce antigenicity
- An **exceptional digestibility** of all ingredients to reduce the antigenic load and help manage any GI signs
- **Purified starch source and sucrose**, from which virtually all intact protein has been removed. This dramatically reduces the risk of allergic responses
- **Long-chain omega-3 fatty acids** to help reduce inflammatory responses. These are incorporated into cell membranes in place of a proportion of arachidonic acid. Long-chain omega-3 fatty acids subsequently compete with arachidonic acid as a substrate for eicosanoid production and thereby **maximise the natural anti-inflammatory process**





Other relevant literature:
- Tapp T, *et al.* (2002) Comparison of a commercial limited-antigen diet versus home-prepared diets in the diagnosis of canine adverse food reaction. *Vet Therapeutics.* **3**: 244-51.
- Hall EJ, *et al.* (2000) Diseases of the small intestine: dietary sensitivity. In Ettinger SJ, Feldman EC (eds). Textbook of Veterinary Internal Medicine, 5th edition. W. B. Saunders Co, Philadelphia. 1230-3.
- Marks SL, *et al.* (2002) Dietary trial using a commercial hypoallergenic diet containing hydrolyzed protein for dogs with inflammatory bowel disease. *Vet Therapeutics.* **3**: 109-18.