

Prescription Diet™

CHAPTER

8



vna
veterinary nutrition academy

LEVEL 1



Contents

1

Prescription Diet™

| | |
|---|----|
| Product summary table | 5 |
| a/d™ Canine/Feline | 8 |
| b/d™ Canine | 9 |
| c/d™ Canine and c/d™ Feline Multicare | 10 |
| d/d™ Canine and d/d™ Feline | 12 |
| g/d™ Feline | 13 |
| h/d™ Canine | 14 |
| i/d™ Canine and i/d™ Feline | 15 |
| j/d™ Canine/Feline and j/d™ Canine Reduced Calorie | 16 |
| k/d™ Canine and k/d™ Feline | 17 |
| l/d™ Canine and l/d™ Feline | 18 |
| m/d™ Feline | 21 |
| n/d™ Canine | 22 |
| p/d™ Canine | 23 |
| p/d™ Canine Large Breed | 24 |
| r/d™ Canine and r/d™ Feline | 25 |
| s/d™ Canine and s/d™ Feline | 27 |
| t/d™ Canine and t/d™ Feline | 28 |
| u/d™ Canine | 30 |
| w/d™ Canine and w/d™ Feline | 31 |
| z/d™ Canine ULTRA Allergen-Free and z/d™ Feline ULTRA Allergen-Free | 32 |
| z/d™ Canine and Feline Low Allergen | 33 |

- **Building your portfolio**





Learning outcomes

By the end of this module, you will be able to:

- Better understand which diseases can be supported with tailored nutritional diets
- Understand how the special features of each product translate into benefits for the pet



1

Prescription Diet™

The Hill's Prescription Diet range is the most advanced and complete range of specialist nutrition products available. It is used for the dietary management of clinical disorders.

The Prescription Diet range is named with a combination of two letters. The second letter is always a 'd' for diet, and the first letter ranges from a to z depending on the diet.

a/d

Exercise

To make it easier – and more fun – for you to find your way around all the letters, try to come up with suggestions for what the Prescription Diet product letters could stand for. On the next page, you will find a table with a summary of all the products.

Here are some examples:

a/d: astounding diet, anorectic diet, after-surgery diet

w/d: wonderful diet, weight diet

c/d: complete diet, cystitis diet, comfortable diet, etc.



Under each product, you will find three points:

1. General information
2. Main indications
3. Features and benefits

The features and benefits will give you specific details on the nutrients in the diet, compared to Science Plan™ Advanced Fitness Canine or Feline. This means that the emphasis is on the factors that help to make the diet uniquely suitable to support specific disease conditions. For details on what nutrients healthy dogs and cats need, refer to Chapter 5.

Product summary table

| Prescription Diet | CANINE | FELINE | Usage |
|--------------------------------|--------|--------|---|
| a/d | ✓ | ✓ | Aids pets in recovery and with appetite loss |
| b/d | ✓ | | Helps manage signs of brain ageing |
| c/d | ✓ | | Helps reduce the recurrence of struvite uroliths and calcium phosphate uroliths |
| c/d Multicare | | ✓ | Helps manage feline lower urinary tract disease |
| d/d | ✓ | ✓ | For long-term feeding of pets with adverse food reactions |
| g/d | | ✓ | For early stages of kidney disease or cardiac disorders |
| h/d | ✓ | | Reduces fluid retention and supports cardiac health |
| i/d | ✓ | ✓ | Helps support recovery in pets with gastrointestinal disorders |
| j/d | ✓ | ✓ | For pets' joint support |
| k/d | ✓ | ✓ | Alleviates clinical signs of chronic renal failure and helps slow its progression |
| l/d | ✓ | ✓ | For the nutritional management of pets with liver disorders |
| m/d | | ✓ | For support of cats with diabetes mellitus and/or excess weight |
| n/d | ✓ | | For support of dogs with serious illnesses such as cancer |
| p/d | ✓ | | Helps recovery and boosts the immune response of puppies |
| p/d Large Breed | ✓ | | For support of healthy skeletal development in large breed puppies |
| r/d | ✓ | ✓ | Helps overweight pets lose weight safely and effectively |
| s/d | ✓ | ✓ | Helps dissolve struvite uroliths |
| t/d | ✓ | ✓ | Maintains gingival health and reduces the build-up of tartar, plaque and stain |
| u/d | ✓ | | Helps reduce urate, oxalate and cystine urolith formation |
| w/d | ✓ | ✓ | Helps manage pets with diabetes mellitus and helps maintain optimal weight |
| z/d Ultra Allergen-free | ✓ | ✓ | An elimination diet to help identify and manage adverse food reactions |
| z/d Low Allergen | ✓ | ✓ | Helps to manage adverse food reactions |

Disease and product recommendations

Canine

| | Recommended product | Alternative recommendation |
|---|-----------------------------------|---|
| OVERWEIGHT PETS | | |
| Weight reduction | r/d Canine | r/d Mini Canine |
| Weight control (prevention of recurrence) | w/d Canine | w/d Mini Canine |
| DENTAL DISORDERS | | |
| Gingivitis | t/d Canine | t/d Mini Canine |
| Oral malodour due to dental plaque | t/d Canine | t/d Mini Canine |
| Tartar, plaque, stain | t/d Canine | t/d Mini Canine |
| GASTROINTESTINAL DISORDERS | | |
| Adverse food reactions | z/d ULTRA Canine | z/d Low Allergen Canine, d/d Canine |
| Bloat (gastric dilatation and volvulus) | i/d Canine | |
| Colitis | i/d Canine | d/d Canine |
| Colitis, fibre-responsive | w/d Canine | w/d Mini Canine, t/d Canine & t/d Mini Canine, r/d Canine & r/d Mini Canine |
| Colitis, food intolerant | z/d ULTRA Canine | z/d Low Allergen Canine, d/d Canine |
| Constipation | w/d Canine | w/d Mini Canine, t/d Canine & t/d Mini Canine, r/d Canine & r/d Mini Canine, i/d Canine |
| Diarrhoea | i/d Canine | d/d Canine, w/d Canine & w/d Mini Canine |
| Diarrhoea, fibre responsive | w/d Canine | w/d Mini Canine, t/d Canine & t/d Mini Canine |
| Diarrhoea, food intolerant | z/d ULTRA Canine | z/d Low Allergen Canine, d/d Canine |
| Exocrine pancreatic insufficiency | i/d Canine | |
| Flatulence | i/d Canine | |
| Flatulence, fibre responsive | w/d Canine | w/d Mini Canine, t/d Canine & t/d Mini Canine |
| Flatulence, food intolerant | z/d ULTRA Canine | z/d Low Allergen Canine, d/d Canine |
| Gastroenteritis | i/d Canine | z/d ULTRA Canine, z/d Low Allergen Canine, d/d Canine, w/d Canine & w/d Mini Canine |
| Pancreatitis | i/d Canine | d/d Canine (dry), w/d Canine & w/d Mini Canine |
| Regurgitation | i/d Canine | |
| Vomiting (non renal) | i/d Canine | |
| JOINT SUPPORT | | |
| Joint support | j/d Canine | j/d Mini Canine |
| Joint support for dogs prone to gain weight | j/d Reduced Calorie Canine | |
| CANINE BRAIN AGEING | | |
| Behavioural changes in senior animals | b/d Canine | |
| Brain ageing | b/d Canine | |
| KIDNEY DISEASE | | |
| Chronic kidney disease, early (IRIS stages 1–2) | k/d Canine | t/d Canine & t/d Mini Canine |
| Chronic kidney disease, (IRIS stage 3) | k/d Canine | u/d Canine |
| Chronic kidney disease, end-stage (IRIS stage 4) | u/d Canine | |
| Uraemic encephalopathy | u/d Canine | k/d Canine |
| CANINE UROLITHS | | |
| Calcium phosphate, reduce recurrence | c/d Canine | u/d Canine (if brushite is present) |
| Cystine, dissolution | u/d Canine plus tiopronin (2-MPG) | |
| Cystine, reduce recurrence | u/d Canine | |
| Oxalate, reduce recurrence | u/d Canine | |
| Struvite, dissolution | s/d Canine | |
| Struvite, reduce recurrence | c/d Canine | |
| Struvite, reduce recurrence in obesity-prone | w/d Canine | w/d Mini Canine |
| Urate, dissolution | u/d Canine plus allopurinol | |
| Urate, reduce recurrence | u/d Canine | |

| | Recommended product | Alternative recommendation |
|--|---------------------|--|
| SKIN CONDITIONS | | |
| All cases of pruritic skin conditions initially | d/d Canine | |
| Adverse food reactions Protein hydrolysate products | z/d ULTRA Canine | z/d Low Allergen Canine |
| Adverse food reactions Novel protein products | d/d Canine | |
| Non-allergic cases, long term | d/d Canine | p/d Canine (debilitated dogs and puppies) |
| LIVER DISORDERS | | |
| Copper storage disease | l/d Canine | u/d Canine (advanced stage) |
| Hepatic encephalopathy | l/d Canine | u/d Canine (advanced stage) |
| Liver disorders | l/d Canine | |
| Liver disorders with oedema/ascites/ hypertension | l/d Canine | h/d Canine |
| Portosystemic shunt | l/d Canine | u/d Canine |
| CARDIAC DISORDERS | | |
| Cardiac disorders, early | k/d Canine | w/d Canine & w/d Mini Canine, t/d Canine & t/d Mini Canine |
| Cardiac disorders, moderate/advanced | h/d Canine | |
| DIABETES MELLITUS | | |
| Diabetes mellitus, normal weight | w/d Canine | t/d Canine & t/d Mini Canine |
| Diabetes mellitus, overweight | r/d Canine | r/d Mini Canine |
| Diabetes mellitus, underweight | i/d Canine | |
| Diabetes mellitus, with hyperlipidaemia | w/d Canine | w/d Mini Canine, r/d Canine & r/d Mini Canine |
| RECOVERY | | |
| Anorexia | a/d Canine/Feline | |
| Cancer/neoplasia, most forms | n/d Canine | a/d Canine/Feline |
| Critical care & tube feeding | a/d Canine/Feline | |
| Debility & convalescence including anaemia, malnutrition, fractures and surgical repair | a/d Canine/Feline | p/d Canine & n/d Canine |
| In chemotherapy/radiotherapy | n/d Canine | a/d Canine/Feline |
| Insulinoma | a/d Canine/Feline | p/d Canine |
| Malignant lymphoma (lymphosarcoma) | n/d Canine | a/d Canine/Feline |
| Minor procedure | i/d Canine | a/d Canine/Feline, p/d Canine & n/d Canine |
| OTHER | | |
| Ascites/oedema, always relate to cause e.g. | | |
| associated with cardiac disorders | h/d Canine | |
| associated with hypoproteinaemia | a/d Canine/Feline | n/d Canine |
| Cushing's syndrome | i/d Canine | |
| Eclampsia | p/d Canine | |
| Hyperlipidaemia | r/d Canine | w/d Canine & w/d Mini Canine, r/d Canine & r/d Mini Canine |
| Hypoglycaemia, functional | p/d Canine | a/d Canine/Feline |
| Skeletal disorders | p/d Canine | |
| Weaning, early | i/d Canine (canned) | p/d Canine (canned) |

NO WHEAT OR WHEAT GLUTEN ADDED

All Prescription Diet Canine products except b/d Canine and h/d Canine dry. (The gluten of pearl barley, in p/d Canine canned and w/d Canine canned, may cross react with wheat gluten.)

NO SOY PROTEIN ADDED

All Prescription Diet Canine products except:

- the canned formulas: c/d Canine, j/d Canine, l/d Canine, r/d Canine and u/d Canine
- the dry formulas: b/d Canine, j/d Canine, j/d Reduced Calorie Canine, l/d Canine and r/d Canine

NO MILK ADDED

All Prescription Diet Canine products except j/d Canine canned and k/d Canine canned.

Feline

| | Recommended product | Alternative recommendation |
|---|--|---|
| OVERWEIGHT PETS | | |
| Weight reduction | r/d Feline | m/d Feline |
| Weight control (prevention of recurrence) | w/d Feline | m/d Feline |
| DENTAL DISORDERS | | |
| Prone to gingivitis | t/d Feline | |
| Oral malodour due to dental plaque | t/d Feline | |
| Tartar, plaque, stain | t/d Feline | |
| GASTROINTESTINAL DISORDERS | | |
| Adverse food reactions | z/d ULTRA Feline | z/d Low Allergen Feline, d/d Feline |
| Colitis | d/d Feline | i/d Feline |
| Colitis, fibre-responsive | w/d Feline | t/d Feline, r/d Feline |
| Colitis, food intolerant | z/d ULTRA Feline | z/d Low Allergen Feline, d/d Feline |
| Constipation | w/d Feline | t/d Feline, r/d Feline, i/d Feline |
| Diarrhoea | i/d Feline | d/d Feline, w/d Feline |
| Diarrhoea, fibre responsive | w/d Feline | t/d Feline |
| Diarrhoea, food intolerant | z/d ULTRA Feline | z/d Low Allergen Feline, d/d Feline |
| Exocrine pancreatic insufficiency | i/d Feline | |
| Flatulence | i/d Feline | |
| Flatulence, food intolerant | z/d ULTRA Feline | z/d Low Allergen Feline, d/d Feline |
| Gastroenteritis | i/d Feline | z/d ULTRA Feline, z/d Low Allergen Feline, d/d Feline, w/d Feline |
| Pancreatitis | i/d Feline | d/d Feline |
| Regurgitation | i/d Feline | |
| Vomiting | i/d Feline | |
| JOINT SUPPORT | | |
| Joint support | j/d Feline | |
| KIDNEY DISEASE | | |
| Chronic kidney disease, early (IRIS stages 1–2) | g/d Feline | k/d Feline |
| Chronic kidney disease (IRIS stages 3–4) | k/d Feline | |
| Uraemic encephalopathy | k/d Feline | |
| FELINE LOWER URINARY TRACT DISEASE (FLUTD) | | |
| All cases initially , (e.g. during investigation) | c/d Multicare Feline | |
| Calcium phosphate , reduce recurrence | c/d Multicare Feline | k/d Feline (if brushite is present) |
| Calcium phosphate , reduce recurrence in obesity-prone | w/d Feline | |
| Cystine , reduce recurrence | k/d Feline | |
| Feline idiopathic cystitis (FIC) | c/d Multicare Feline (pouch or canned) | |
| Oxalate , reduce recurrence | c/d Multicare Feline | |
| Struvite , dissolution | s/d Feline | |
| Struvite , reduce recurrence | c/d Multicare Feline | |
| Struvite , reduce recurrence in obesity-prone | w/d Feline | |
| Urate , reduce recurrence | k/d Feline | |

NO WHEAT OR WHEAT GLUTEN ADDED

All Prescription Diet Feline products except c/d Multicare Feline pouch, i/d Feline pouch, i/d Feline canned, j/d Feline canned, k/d Feline pouch and l/d Feline canned.

NO SOY PROTEIN ADDED

All Prescription Diet Feline products except c/d Multicare Feline pouch, i/d Feline pouch, j/d Feline canned, l/d Feline canned and m/d Feline canned.

NO MILK ADDED

All Prescription Diet Feline products except j/d Feline canned.



| | Recommended product | Alternative recommendation |
|--|---------------------|----------------------------|
| SKIN CONDITIONS | | |
| All cases of pruritic skin conditions initially | d/d Feline | |
| Adverse food reactions protein hydrolysate products | z/d ULTRA Feline | z/d Low Allergen Feline |
| Adverse food reactions Novel protein products | d/d Feline | |
| Non-allergic cases, long term | d/d Feline | |
| LIVER DISORDERS | | |
| Hepatic lipidosis , without primary liver disease or encephalopathy | a/d Canine/Feline | m/d Feline |
| Hepatic lipidosis , with primary liver disease or encephalopathy | l/d Feline | |
| Hepatic encephalopathy | l/d Feline | |
| Liver disorders | l/d Feline | |
| CARDIAC DISORDERS | | |
| Cardiac disorders , early | l/d Feline | g/d Feline, k/d Feline |
| Cardiac disorders , moderate/advanced | l/d Feline | k/d Feline |
| DIABETES MELLITUS | | |
| Diabetes mellitus , normal weight | m/d Feline | w/d Feline |
| Diabetes mellitus , overweight | m/d Feline | r/d Feline |
| Diabetes mellitus , underweight | m/d Feline | w/d Feline (dry) |
| Diabetes mellitus , with hyperlipidaemia | m/d Feline | r/d Feline |
| RECOVERY | | |
| Anorexia | a/d Canine/Feline | |
| Cancer/neoplasia , most forms | a/d Canine/Feline | |
| Critical care & tube feeding | a/d Canine/Feline | |
| Debility & convalescence , including anaemia, malnutrition, fractures and surgical repair | a/d Canine/Feline | |
| In chemotherapy/radiotherapy | a/d Canine/Feline | |
| Minor procedure | i/d Feline | a/d Canine/Feline |
| OTHER | | |
| Ascites/oedema , always relate to cause e.g. | | |
| associated with cardiac disorders | l/d Feline | k/d Feline |
| associated with hypoproteinaemia | a/d Canine/Feline | |
| Hyperlipidaemia | r/d Feline | w/d Feline (dry) |
| Hyperthyroidism | a/d Canine/Feline | |





Dog with cachexia

Definitions

Cachexia: severe malnutrition and body wasting.

Sepsis: the build up of bacteria or their toxins in the blood and tissue.

Pyometra: infection of the uterus that causes it to fill up with pus.

Feline hepatic lipidosis: abnormal accumulation of fat in the liver cells in the cat.

Autoimmune: disease that occurs when the body's immune system attacks its own tissues.

Peritonitis: inflammation of the peritoneum.

MAIN INDICATIONS

- Debilitation
- Cachexia
- Anorexia
- Abscesses
- Burns
- Infectious disease
- Sepsis
- Fever
- Pyometra (except if azotaemia is present)
- Feline hepatic lipidosis
- Major surgery
- Autoimmune disease
- Peritonitis
- Feline cancer
- In chemotherapy/radiotherapy



Prescription Diet™ a/d™ Canine/Feline

General information

Prescription Diet a/d Canine/Feline is an extremely palatable canned food with a smooth texture and outstanding nutritional benefits. The food is tasty and makes it easy to provide pets with serious diseases the special nutrients they need. Prescription Diet a/d Canine/Feline is unique in that it is equally appropriate for both dogs and cats. This is because a dog's metabolism changes with disease conditions to have a higher need for protein and fat that is similar to the requirements of cats. Both dogs and cats undergo significant changes when faced with serious illness, injury or surgery. If they do not receive a special diet during recovery, they may have difficulties maintaining their natural defenses and may lose muscle mass and organ tissues. Prescription Diet a/d can assist wound healing and recovery after surgery, cachexia and debilitation.

| KEY FEATURES | | KEY BENEFITS |
|----------------------------|--|---|
| Protein | Increased | Supports wound healing. |
| Branched-chain amino acids | | Helps preserve lean body mass. |
| Arginine | | Helps maintain body defences. |
| Fat | | Primary energy source for nutritional restoration. |
| Omega-3 fatty acids | | Soothes tissues. |
| Glutamine | Increased | Supports small intestinal health. |
| Zinc | Increased | Supports convalescence and natural defences. |
| Potassium | Increased | Combats depletion. |
| Consistency | Soft and thixotropic (stirring makes it more liquid) | Gives flexibility in feeding, i.e. by bowl, spoon, syringe or tube. |
| Palatability | High | Aids acceptance by inappetant patients. |

a/d is used to aid pets in recovery and with appetite loss



Prescription Diet™ b/d™ Canine

General information

The older dog's brain is more vulnerable to damage because more free radicals are naturally produced by the body. The damage free radicals inflict on the brain may cause progressive changes in behaviour in older dogs. Half of all dogs aged eight years or older show signs of brain ageing. Prescription Diet b/d Canine is specifically formulated with an exclusive, patented blend of antioxidants and vegetables to fight the signs of brain ageing and age-related behavioural changes. It even helps to improve the learning ability of older dogs.

The diet is clinically proven to help combat the signs of brain ageing:

- D** – Disorientation
- I** – Interacts less
- S** – Sleep pattern disturbed
- H** – House training lost

At the same time, the diet is very palatable and suitable for older dogs. b/d Canine will support long-term adult senior maintenance.

| KEY FEATURES | | KEY BENEFITS |
|--|--------------|---|
| Vitamin E Other antioxidants (including carotenoids and flavonoids) | Increased | Neutralises free radicals. Helps manage age-related behavioural changes. |
| L-Carnitine | Supplemented | Facilitates mitochondrial energy production. |
| Omega-3 fatty acids (DHA and EPA) | Increased | Supports vital cell membrane functions. |
| Sodium Phosphorus Protein | Moderate | To help maintain heart and kidney health in older dogs. |
| Fibre | Increased | Assists bowel function in older dogs. |

Let your client know

b/d may even help to improve the learning ability of their old dog.

Definition

Subclinical: when a disease is present, but the symptoms of the disease are not apparent. This means that the pet is ill – but we do not know it yet.

MAIN INDICATIONS

- Canine brain ageing
- Age-related behavioural changes in older dogs



b/d is used to help manage signs of brain ageing

Prescription Diet™ c/d™ Canine

Clinical note

One of the most important aspects of a diet meant for urolithiasis is that it produces a urinary pH that helps to prevent crystals from forming. For example, struvite crystals tend to form in urine with a high pH, therefore to help prevent these crystals forming, a more acidic pH needs to be produced.

Definition

Struvite crystals consist of:

- Magnesium
- Ammonium (from protein)
- Phosphate

General information

Some forms of urinary tract disease are associated with the build-up of crystals and stones in the urinary tract. These can cause painful urination, bloodstained urine and potential blockage of the urinary tract. A common type of crystal that forms is called struvite. Prescription Diet c/d was formulated specifically to help to reduce recurrence of struvite-related urinary tract disease. Struvite forms when the urine is saturated with magnesium, ammonium and phosphorus, and has an alkaline (basic) urinary pH (>6.5).

c/d Canine is tasty and will support long-term adult maintenance of dogs.

| KEY FEATURES | | KEY BENEFITS |
|------------------------------|------------------|--|
| Magnesium Phosphorus | Reduced | Decreases urinary concentration of struvite constituents, magnesium, ammonium (from protein), phosphate. |
| Target urinary pH | Acid: pH 6.2–6.4 | Discourages the formation and aggregation of struvite crystals. |
| Superior antioxidant formula | Added | Neutralises free radicals to help combat urolithiasis. |

MAIN INDICATIONS

- Recurrent struvite urolithiasis in dogs



c/d is used to reduce the recurrence of struvite uroliths and calcium phosphate uroliths

Prescription Diet™ c/d™ Multicare Feline

General information

About 1% of cats suffer from feline lower urinary tract disease (FLUTD) which is associated with clinical signs such as an increased frequency of urination (pollakiuria), bloody urine (haematuria) and straining to urinate (stranguria). Many separate conditions can cause these same signs but the idiopathic form – Feline Idiopathic Cystitis (FIC) – is the most common by far (up to 69% of cases). The term FIC is used for cats with signs of lower urinary tract disease where the cause is not known. It is thought that stress may play an important role in triggering or worsening the condition.

Other common causes of FLUTD include stones, urethral plugs and urinary tract infection in cats over 10 years old.

c/d Multicare Feline has been formulated to help with the **initial** management of cats with **any type of FLUTD** and will support long-term adult maintenance.

Let your client know

The target urinary pH for c/d Multicare Feline is 6.2–6.4 which discourages the formation and aggregation of struvite crystals without encouraging the formation of oxalate crystals.

Clinical note

Feline Idiopathic Cystitis (FIC) is a term that is used for cats that have signs of a lower urinary tract disease that are not caused by crystals, stones or infection, and that are chronic and recurrent.

MAIN INDICATIONS

- FLUTD due to struvite urolithiasis
- FLUTD due to oxalate urolithiasis
- Feline Idiopathic Cystitis (c/d Multicare canned or pouches)
- Urethral plugs (almost exclusively associated with struvite or calcium phosphate crystals)

| KEY FEATURES | | KEY BENEFITS |
|------------------------------------|--|---|
| Magnesium Phosphorus Calcium | Reduced | Decreases urinary concentration of struvite constituents (magnesium and phosphate) and calcium and oxalate constituents. |
| Oxalate | Controlled | Limits calcium oxalate formation. |
| Sodium | Controlled | Helps maintain healthy kidney function. |
| Citrate | Added | Forms soluble complexes with calcium to inhibit calcium oxalate formation. |
| Target urinary pH | Acid: pH 6.2–6.4 | Discourages the formation and aggregation of struvite crystals without encouraging the formation of oxalate crystals. |
| Water | Increased in pouch and canned formulas | Increases urine volume, which dilutes the constituents of uroliths. Lowers urinary specific gravity, to reduce recurrence of feline idiopathic cystitis. |
| Formulas | 4, i.e. a pouch, a canned & 2 dry | Increases choice to encourage acceptance and compliance. |
| Vitamin E Beta-carotene | Added | Neutralises free radicals free radicals to help combat urolithiasis. Vitamin C is not supplemented because it is a precursor of oxalate. |



c/d Multicare is used to help manage feline lower urinary tract disease

Prescription Diet™ d/d™ Canine and Feline

Let your client know

Even very small amounts of what the pet reacts to can cause problems – so use d/d as the only treat.

d/d CANINE PROTEIN SOURCES

Canned Venison
Duck
Salmon
Lamb

Dry Egg and Rice
Duck and Rice
Salmon and Rice

d/d FELINE PROTEIN SOURCES

Canned Venison
Dry Venison and Green Pea

MAIN INDICATIONS

- Dermatological or gastrointestinal signs resulting from adverse food reactions
- Non-allergic skin conditions

**Clinically
PROVEN**



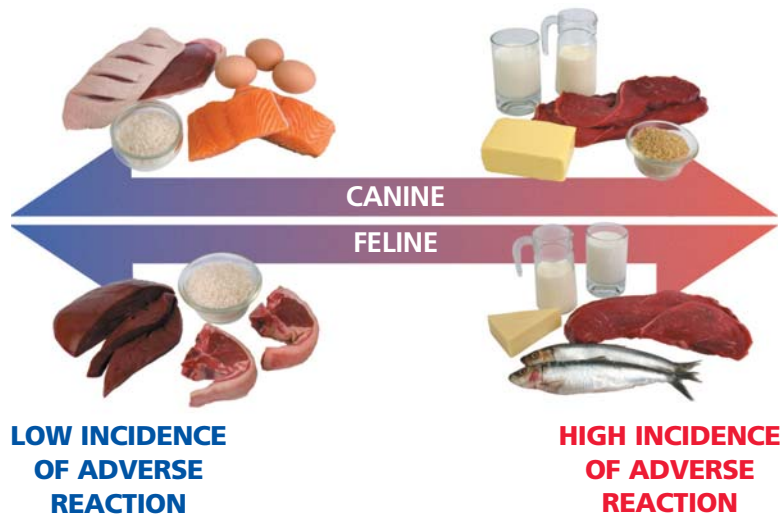
General information

Adverse food reactions (food allergy or intolerance) may result in numerous skin and GI problems that can cause discomfort and pain in the dog and cat. Prescription Diet d/d Canine and Prescription Diet d/d Feline come with novel protein sources to help manage adverse food reactions.

In dogs, reactions commonly occur as a result of consuming beef, dairy products and wheat. The Prescription Diet d/d Canine foods contain none of these.

For cats, most allergic reactions occur as a result of consuming beef, dairy products and fish. Prescription Diet d/d Feline contains none of these.

Prescription Diet d/d Canine and Feline can be fed to both dogs and cats with non-allergic skin conditions, because the diets provide the correct balance of nutrients to support skin function, including high levels of omega-3 fatty acids, to help limit the skin reaction.



| KEY FEATURES | | KEY BENEFITS |
|----------------------------------|--|---|
| Protein | Single, novel animal source Moderate amount of high digestibility | Helps avoid common food allergens. Limits the amount of undigested protein in the intestinal tract able to provoke an allergic reaction. |
| Number of novel protein formulas | Canine: Four (4 canned, 3 of the four also exist in dry) Feline: One, available in canned and dry | Increases choice (related to suspected allergy and patient preference). |
| Carbohydrate | Canine: Solely from potato or rice Feline: Solely from green pea | Adverse reaction to potato, rice or pea is rare. |
| Omega-6 fatty acids | High | Helps maintain glossy coat and smooth skin. |
| Omega-3 fatty acids | High | Helps limit the skin reaction. |
| Superior antioxidant formula | Added | Neutralises free radicals in the skin which is particularly sensitive to them. |

d/d is used for long term feeding of pets with adverse food reactions

Prescription Diet™ g/d™ Feline

General information

Prescription Diet g/d Feline is a nutritional aid for early stages of cardiac disorders, or early stages of chronic kidney disease. The diet combines highly digestible ingredients with a nutritional profile that is optimal for the long-term maintenance of older cats.



Let your client know

Cats with kidney disease feel better if fed the right diet.

| KEY FEATURES | | KEY BENEFITS |
|------------------------------|------------------------------------|--|
| Protein | High quality & Controlled quantity | Limits accumulation of toxic protein-breakdown products. |
| Phosphorus | Reduced | Helps slow progression of kidney disease. |
| Dietary buffering capacity | Increased | Helps counteract metabolic acidosis. |
| Sodium | Controlled | Controls hypertension. Limits fluid retention in early cardiac disorders. |
| Soluble fibre | Increased | Decreases ammonia reabsorption in the bowel. Helps to lower blood urea level. |
| L-Carnitine | Supplemented | Helps maintain lean muscle mass. |
| Taurine | Supplemented | Helps maintain heart muscle function. |
| Superior antioxidant formula | Added | Helps neutralise free radicals to support kidney function. |

MAIN INDICATIONS

- Kidney disease – early stages
- Cardiac disorders



g/d is used for cats with early stages of kidney disease or cardiac disorders

Prescription Diet™ h/d™ Canine

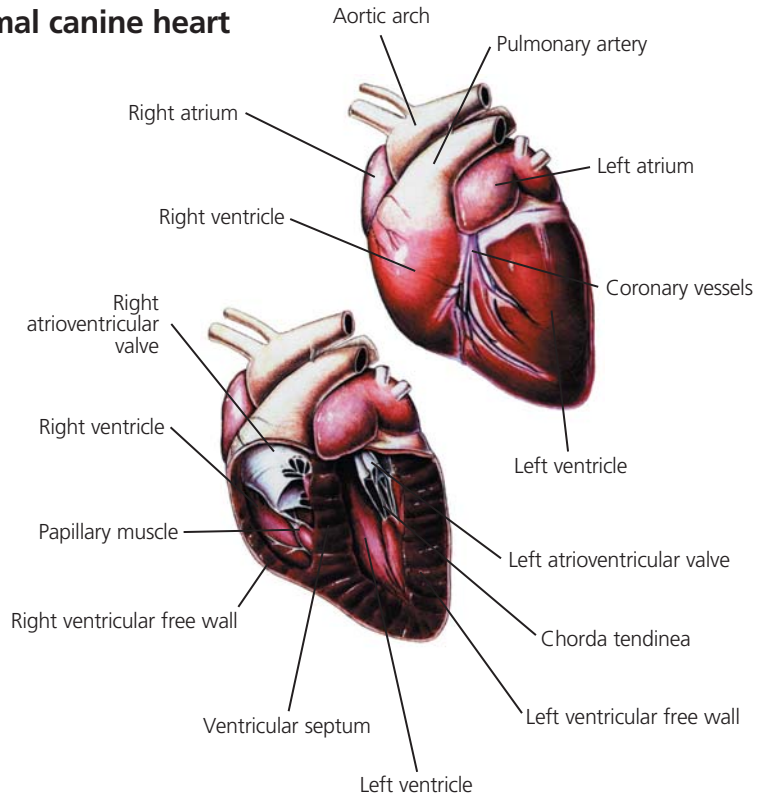
Let your client know

People with heart disorders need to eat correctly to help them feel better; dogs with heart disorders also need a special diet.

General information

Many older dogs develop heart disorders and/or hypertension (high blood pressure). The most commonly seen heart disorders are due to a leaking heart valve or a weakened heart muscle. Dogs with heart disorders are less able to regulate the blood content of sodium and chloride, which may lead to fluid retention and discomfort as well as putting the heart under extra pressure. Prescription Diet h/d Canine can help to support the heart and control some of the clinical signs of hypertension.

Normal canine heart



MAIN INDICATIONS

- Cardiac disorders



| KEY FEATURES | | KEY BENEFITS |
|------------------------------|----------------------|--|
| Sodium Chloride | Low | Helps control clinical signs associated with sodium and fluid retention. |
| Potassium Magnesium | Optimally controlled | Allows patients to receive diuretics or ACE inhibitors. |
| Taurine L-Carnitine | Supplemented | Helps maintain normal heart muscle function. |
| Protein Phosphorus | Reduced | Helps slow progression of concurrent renal insufficiency. |
| B-complex vitamins | Increased | Counters increased losses in patients receiving diuretics. |
| Superior antioxidant formula | Added | Neutralises free radicals to support cardiac function. |

h/d is used to reduce fluid retention and support cardiac health

Prescription Diet™ i/d™ Canine and Feline

General information

Prescription Diet i/d Canine and i/d Feline are uniquely designed to benefit dogs and cats with gastrointestinal disorders such as diarrhoea, vomiting, regurgitation, flatulence, bloat, constipation and pancreatitis. They benefit pets with both acute and chronic disease. The bland and non-irritant consistency of the diet helps even dogs and cats with acute bouts of vomiting recuperate.

| KEY FEATURES | | KEY BENEFITS |
|------------------------------------|-----------|--|
| Digestibility | High | Ensures availability of nutrients whilst allowing for healing of the digestive tract. |
| Fat | Reduced | Helps limit vomiting and steathorrhoea. |
| Soluble fibre | Increased | Provides short chain fatty acids to nourish enterocytes in the colon and restore intestinal flora. |
| Electrolytes B-complex vitamins | Increased | Helps reduce losses caused by vomiting and diarrhoea. |
| Superior antioxidant formula | Added | Helps neutralise free radicals associated with gastroenteritis. |

Definition

When a word is used that ends in *-itis*, such as:

- Pancreatitis
- Colitis
- Cystitis

it means that there is an inflammatory reaction in the organ mentioned, so pancreatitis is an inflammation in the pancreas, while colitis is an inflammation in the colon.

MAIN INDICATIONS

Gastrointestinal disorders:

- Gastritis
- Enteritis
- Colitis
- Recovery from gastrointestinal surgery
- Exocrine pancreatic insufficiency
- Acute pancreatitis without hyperlipidaemia
- Bloat (gastric dilatation and volvulus) (Canine)
- Growing puppies, including early weaning (e.g. orphaned puppies)



i/d helps support recovery in pets with gastrointestinal disorders

Prescription Diet™ j/d™ Canine and Feline

Let your client know

In a clinical study of over a thousand dogs fed on Prescription Diet j/d Canine, 83% of clients reported that they could see a difference in as little as 21 days*.

Clinical note

Nutrigenomics: This new field of technology looks at the effect of nutrition on gene expression. Polyunsaturated fatty acids (PUFAs) such as the omega-3 and omega-6 series, have been found to be of increasing importance in the maintenance of health. New research has identified further potential benefits of these nutrients with regards to gene expression, where they can help to maintain healthy tissues and metabolism.

Clinical note

Up to 40% of dogs are overweight or obese. This is a risk factor for other diseases including osteoarthritis. Many dogs presented to veterinary clinics with mobility problems are already overweight. Reducing weight can result in a marked improvement in mobility patients, even in those mildly overweight.

Prescription Diet j/d Canine Reduced Calorie is formulated specifically for dogs with mobility problems who are overweight or prone to weight gain.

MAIN INDICATIONS

- **Joint Support**

*Hill's European Client Survey 2007.

General information

Mobility problems affect about 1 in 5 dogs. The incidence in cats is less clear, though some studies have shown about 6 in 10 older cats may be affected.

Prescription Diet j/d has been developed to help maintain mobility in dogs and cats with mobility problems. It contains the Hill's Advanced Mobility Formula which helps to ease aching joints and preserve healthy cartilage, through a special blend of omega-3 and omega-6 fatty acids. Hill's was the first company to use breakthrough nutrigenomic technology in the development of j/d. This harnesses the use of fatty acid technology to help maintain healthy cartilage and support joint health.



| KEY FEATURES | | KEY BENEFITS |
|--|---------------------|---|
| Omega-3 fatty acids | High | Soothes tissues and eases aching joints. |
| Ratio of omega-6 to omega-3 fatty acids | Low (less than 1:1) | Soothes tissues and eases aching joints. |
| Canine: Eicosapentaenoic acid (EPA) Feline: Docosahexaenoic acid (DHA) and alpha-linolenic acid (ALA) | High | Each preserves healthy cartilage by its specific action. |
| L-Carnitine | Increased | Facilitates the conversion of fat to energy, thereby limiting weight gain and maintaining lean muscle mass, which helps to limit the stress on the joints and to support their stability. |
| L-Lysine | Increased | Helps preserve muscular support for joints. |
| Protein Calcium Phosphorus Sodium | Controlled | Avoids excessive intake which makes the food appropriate to be continued when the pet becomes older. |
| Superior antioxidant formula | Added | Neutralises free radicals in the joints. |

j/d is used for pets' joint support

Prescription Diet™ k/d™ Canine and Feline

General information

Many factors can contribute to kidney disease including infection, changes due to ageing, toxins or breed/predisposition. These factors can make the kidneys less efficient at removing waste products from the body. Because the signs of kidney disease remain difficult to detect until more than two-thirds of kidney function is lost, many dogs and cats may have sub-clinical kidney disease.

Back in 1943, Dr. Mark Morris Senior made the first diet for dogs with kidney disease. This later became Prescription Diet k/d Canine. The k/d Canine of today is a much more sophisticated diet, but the principle of Prescription Diet k/d Canine as well as k/d Feline is still to:

- Ensure better quality of life with fewer clinical signs
- Increase survival time in dogs

Recent clinical research on dogs with naturally occurring kidney disease showed that Prescription Diet k/d Canine:

- Doubled the life expectancy from the time dogs started the diet
- Improved the quality of life
- Slowed the progression of chronic renal failure

k/d Feline has also been shown to decrease early mortality from chronic kidney disease in cats.

Let your client know

If dogs and cats with kidney disease do not get an appropriate diet, they build up waste products in their bodies and their blood pH becomes lower. This makes dogs and cats feel as if they have a really bad hangover.

MAIN INDICATIONS

- Chronic renal disease in dogs and cats
- Cardiac disorders in cats
- Early cardiac disorders in dogs
- Urate and cystine urolithiasis in the cat

| KEY FEATURES | | KEY BENEFITS |
|------------------------------|---------------------------------|---|
| Protein | High quality & reduced quantity | Helps reduce accumulation of toxic protein-breakdown products whilst meeting essential requirement for protein. |
| Non-protein calories | Increased | Helps to ensure adequate energy intake and to avoid protein catabolism. |
| Phosphorus | Reduced | Helps slow progression of kidney disease. |
| Dietary buffering capacity | Increased | Helps counteract metabolic acidosis. |
| Omega-3 fatty acids | Supplemented | Improves renal blood flow. |
| Sodium | Reduced | Helps slow progression of kidney disease. Limits fluid retention in early cardiac disorders. |
| Soluble fibre | Increased | Decreases ammonia reabsorption in the bowel. Helps lower blood urea level. |
| B-complex vitamins | Increased | Combats increased urinary losses due to polyuria. |
| Superior antioxidant formula | Added | Neutralises free radicals to support kidney function. |

**Clinically
PROVEN**



k/d is used to alleviate clinical signs of chronic renal disease and helps slow its progression

Prescription Diet™ I/d™ Canine and Feline

Clinical note

Hepatic copper storage disease is a disease where dogs accumulate copper in their liver at toxic levels. The disease is inherited and is seen in Bedlington terriers and many other breeds. It has been estimated that about 25% of Bedlington terriers are affected, although these numbers may be declining due to focused breeding programmes.

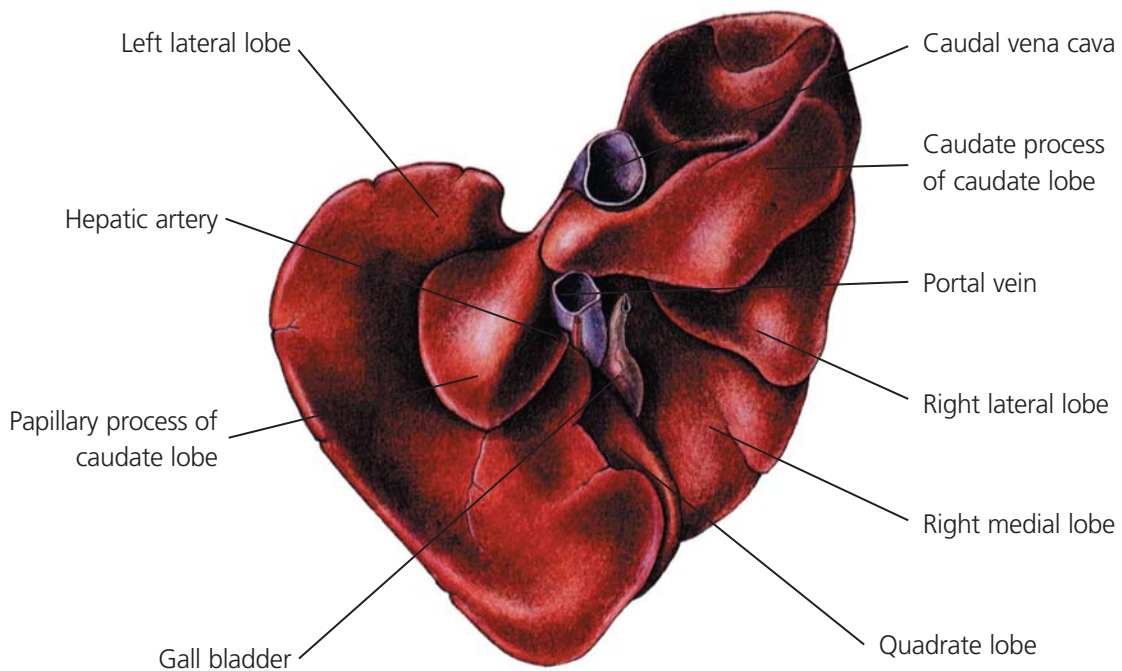
General information

For pets with liver disorders, both Prescription Diet I/d Canine and I/d Feline help to:

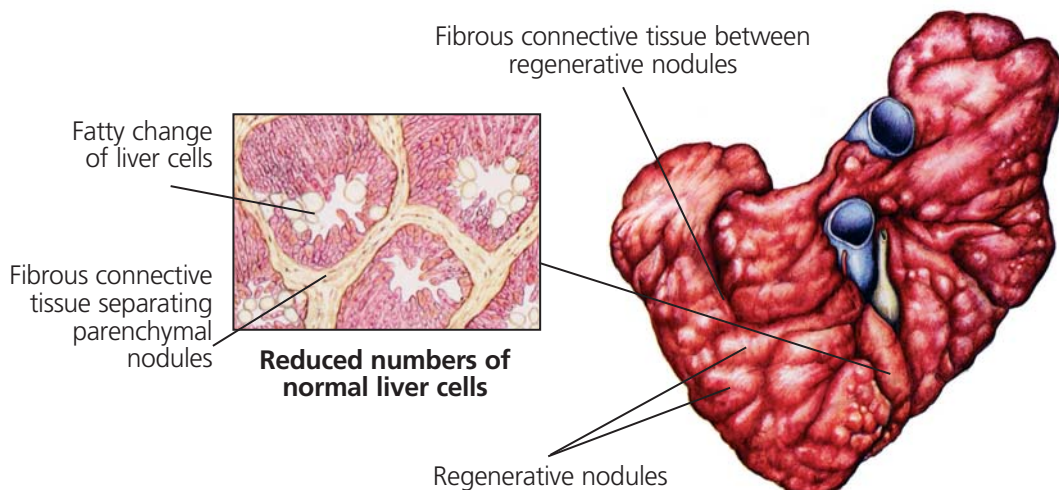
- Alleviate clinical signs
- Improve liver repair
- Improve liver regeneration

The liver is the central and largest metabolic organ of the body and is essential to most body functions. Infections, intoxications, copper storage disorders and other congenital diseases can cause liver disease. Liver disorders are often serious conditions and are frequently accompanied by many uncomfortable and even painful signs. Prescription Diet I/d Canine and I/d Feline were created specifically for the nutritional management of liver disorders that cause reduced liver function.

Normal canine liver



End-stage liver disease



| KEY FEATURES | | KEY BENEFITS |
|---------------------------------------|-------------------------------------|--|
| Protein Branched-chain amino acids | Highly digestible & reduced High | Reduces workload on the liver. Reduces accumulation of ammonia and consequent CNS signs (hepatic encephalopathy). |
| Aromatic amino acids | Balanced | |
| Zinc & Vitamin K | Increased | Avoids deficiencies common in liver disorders. |
| L-Carnitine | Supplemented | Helps improve fat metabolism to limit hepatic lipidosis. |
| Soluble fibre | Supplemented | Helps decrease ammonia reabsorption in the bowel. |
| Sodium | Reduced | Helps limit portal hypertension and ascites. |
| Potassium | Increased | Helps avoid hypokalaemia which can trigger CNS signs. |
| Copper | Reduced | Helps reduce copper accumulation in the liver. |
| Arginine | Increased in l/d Feline | Helps maintain urea cycle, avoiding accumulation of ammonia. |
| Taurine | High in l/d Feline | Helps maintain normal heart muscle function. |
| Superior antioxidant formula | Added | Neutralises free radicals. |

MAIN INDICATIONS

- Liver disorders
- Hepatic encephalopathy (central nervous signs due to liver disease)
- Hepatic lipidosis (Feline)
- Hepatic copper storage disease

A large amount of the total protein comes from vegetable sources (soybean) and egg. This limits the intake of non-protein nitrogen (such as the blood pigment heme (in haemoglobin) which is present in meat and offal). Non-protein nitrogen does not build protein, but is metabolised into ammonia.



l/d is used for the nutritional management of pets with liver disorders



Prescription Diet™ m/d™ Feline

General information

Prescription Diet m/d Feline is a dual-purpose diet that takes an alternative approach to both weight management and diabetes mellitus in cats. Because cats are carnivores, their metabolism can be switched so that it causes the body to use stored fat as the main source of energy. While Prescription Diet r/d Feline has been used with great success for many years for weight loss, and Prescription Diet w/d Feline has been used for diabetes mellitus, some cats respond better to a 'metabolic change' approach. Prescription Diet m/d Feline offers these cats a nutritional, highly palatable alternative for safe and effective weight loss and for the nutritional management of diabetes.

Prescription Diet m/d would be the food of choice for an overweight cat if:

- The owner prefers to avoid an increase in the stool volume
- The cat is accustomed to being fed a cat food with high protein
- The cat is unwilling to accept a high fibre food

Feeding diabetic cats with m/d Feline may reduce the necessary insulin dosage. In a third of cats on such a diet, insulin may be completely discontinued. It is therefore important that the veterinarian monitors the effect of insulin when starting the cat on m/d Feline.

m/d Feline has a unique nutritional profile and is clinically proven to maintain lean muscle mass during weight loss and to provide safe and effective nutritional management for diabetic cats.

Let your client know

In a clinical study of cats with naturally occurring diabetes, owners reported that their cat had an improved quality of life when fed Prescription Diet m/d Feline.



| KEY FEATURES | | KEY BENEFITS |
|------------------------------|--------------|---|
| Carbohydrate | Low | Encourages fat metabolism to provide energy. Helps to improve insulin sensitivity and blood glucose regulation. |
| Protein | High | Helps preserve lean body mass. Helps provide a more uniform supply of glucose via gluconeogenesis. |
| L-Carnitine | Supplemented | Helps improve glucose utilisation. Contributes to faster weight reduction and maintenance of lean muscle mass. |
| Arginine | Increased | Helps stimulate insulin secretion. |
| Fibre | Moderate | Promotes satiety. Helps improve glycaemic control. |
| Superior antioxidant formula | Added | Helps neutralise free radicals that can lead to diabetic complications. |

MAIN INDICATIONS

- **Overweight adult cats (both diabetic and non-diabetic cats)**
- **Diabetes mellitus**



m/d is used to support cats with diabetes mellitus and/or excess weight

Prescription Diet™ n/d™ Canine

Clinical note

Tumour cells use glucose as the primary energy source. This means that when a diet has an increased fat content and a decreased carbohydrate content, there is less glucose available, and the tumour cells are starved.

General information

Cancer is a condition associated with the uncontrolled growth of abnormal cells within the body. These cells may form masses or tumours that can create a variety of painful and serious problems that may lead to death.

Prescription Diet n/d Canine was uniquely formulated by veterinarians and researchers to support dogs with cancer. It is the only food clinically proven to increase life span and improve the quality of life for dogs with cancer. It is also highly palatable and will support the maintenance of adult dogs.



MAIN INDICATIONS

- Cancer and recovery



KEY FEATURES

| KEY FEATURES | | KEY BENEFITS |
|---------------------|-----------|--|
| Carbohydrate | Reduced | Helps to limit lactate production in tumour bearing dogs. |
| Fat | Increased | Energy source for patients which tumours cannot readily utilise. |
| Protein | Increased | Helps meet increased protein requirements of the cancer patient. |
| Omega-3 fatty acids | High | Helps to maintain dogs in remission. |
| Arginine | High | Supports immunity. |

n/d is used to support dogs with serious illnesses such as cancer

Prescription Diet™ p/d™ Canine

General information

Prescription Diet p/d Canine is a highly palatable food that can be used for a number of paediatric conditions where it is desirable to boost the immune response and aid recovery. Prescription Diet p/d also meets the nutrient requirements of puppies and is suitable for supportive care in cases with special needs.

| KEY FEATURES | | KEY BENEFITS |
|---|--------------------------------|--|
| Protein & Fat | Increased | Helps overcome debility and support healing. |
| Omega-3 fatty acid DHA (docosahexaenoic acid) | Increased, from natural source | Aids optimal retinal development to allow better vision. Supports optimal brain development making puppies easier to train. |
| Calcium Phosphorus | Controlled | Supports growth of small/medium breeds and provides nutritional support for lactating bitches of all breeds. |
| Superior antioxidant formula | Added | Neutralises free radicals and supports the immune system. |

MAIN INDICATIONS

- **Nutritional restoration and recovery of paediatric patients:**
 - Failure to thrive
 - Heavy worm burden
 - Surgery
 - Malnutrition (rescued animals)
 - Recovery from viral and bacterial infections
- **Immune system support:**
 - Boost the immune response in puppies
 - Increase the response to vaccination
- **Management of skeletal growth disorders**
- **Fracture repair:**
 - Uncomplicated fractures
 - Minor orthopaedic surgery

**Clinically
PROVEN**



p/d is used to help recovery and to boost the immune response of puppies

Prescription Diet™ p/d™ Canine Large Breed

Let your client know

For large-breed puppies, the optimum rate of growth is 'slow and steady'. This may mean that a healthy-weight puppy looks smaller than you might expect, but in fact a larger-looking puppy is probably being fed too much. And by one year of age, the puppy with optimal growth will have caught up in size!

MAIN INDICATIONS

- Puppies that will weigh more than 25kg when adult
- Avoidance and management of skeletal growth disorders
- Immune system support:
 - Proven to boost the immune response in puppies
 - Increase the response to vaccination

General information

Developmental growth disorders that affect the joints profoundly affect growth patterns and cause serious painful skeletal abnormalities. All puppies are susceptible, but large and giant breeds (those who will weigh more than 25 kg when fully grown) are at greatest risk. Puppies that are predisposed to developmental growth disorders will benefit from a specially designed diet, such as Prescription Diet p/d Canine Large Breed.

| KEY FEATURES | | KEY BENEFITS |
|---|--------------------------------|--|
| Omega-3 fatty acid DHA (docosahexaenoic acid) | Increased, from natural source | Aids optimal retinal development to allow better vision. Supports optimal brain development making puppies easier to train. |
| Energy | Reduced | Aids healthy bone and joint development. |
| Calcium | Controlled | Aids healthy bone and joint development. |
| L-Carnitine | Increased | For greater muscle mass and joint support. For healthy bone development. |
| Superior antioxidant formula | Added | Neutralises free radicals and supports the immune system. |



p/d Large Breed is used to support healthy skeletal development in large breed puppies

Prescription Diet™ r/d™ Canine and Feline

General information

For a long time it has been assumed that adipose tissue (fat) was only there to store fat. However, in recent years, there has been a huge leap forward in our understanding of the role of adipose tissue, with fat cells now being recognised as playing important roles in the regulation of metabolism. Fat cells produce hormones and substances such as cytokines which influence metabolism within the body. Those producing more inflammatory substances are thought to help perpetuate a state of chronic inflammation, which may help to explain why obesity is a risk factor for diseases such as diabetes mellitus and osteoarthritis which are associated with obesity. Weight loss with Prescription Diet r/d helps to regulate the metabolism towards that of a leaner animal, which can be demonstrated by looking at the activity of the genes responsible for this.

An important role of any weight loss diet is in helping to ensure satiety, while the animal is on a lower calorie diet. Prescription Diet r/d helps to achieve satiety through several mechanisms:

- Increased levels of fibre to help fill the gut and trigger receptors to tell the brain that the gut is full
- Increased levels of soluble fibre help specialised cells in the gut release hormones to help reduce further food intake
- Increased levels of protein stimulate other hormones which suppress the appetite

Let your client know

- Helping their pet to lose weight will reduce the risks of associated diseases.
- The new fibre blend in r/d will mean stools are less bulky
- They can find helpful tips and tools for weight loss on www.hillsweightloss.co.uk



MAIN INDICATIONS

- Correction of excess weight in adult dogs and cats:
 - After reaching the target body weight, pets are recommended to be fed Prescription Diet w/d Canine and Feline to maintain their ideal weight

**Clinically
PROVEN**



| KEY FEATURES | | KEY BENEFITS |
|------------------------------|---|--|
| Energy Fat | Low | Stored body fat is used to meet energy needs, resulting in weight loss. |
| Fibre | Increased total dietary fibre Blend of soluble and insoluble | Excess weight: provides increased dietary bulk which aids satiety and avoids hunger. Diabetes mellitus: helps minimise blood glucose fluctuation, which may help to reduce insulin dosage. Colitis: modifies bowel transit time. Constipation: facilitates intestinal motility. |
| L-Carnitine | Supplemented | Facilitates conversion of fat to energy. Helps maintain lean body mass. |
| L-Lysine | Supplemented in Canine r/d | Helps preserve lean muscle mass. |
| Superior antioxidant formula | Added | Neutralises free radicals that may increase in obesity. |

r/d is used to help overweight pets lose weight safely and effectively



Prescription Diet™ s/d™ Canine and Feline

General information

In both dogs and cats, the formation of struvite uroliths can lead to or contribute to lower urinary tract disease. Prescription Diet Canine s/d and Feline s/d are designed to dissolve struvite stones.

| KEY FEATURES | | KEY BENEFITS |
|-------------------------|--------------------------------------|---|
| Energy | Increased | Reduces food intake and thereby mineral intake. |
| Magnesium Phosphorus | Reduced | Decreases urinary concentration of struvite constituents magnesium and phosphorus. |
| Protein | Reduced in s/d Canine | Decreases urinary concentration of struvite constituent ammonium (from protein). |
| Sodium | Increased in s/d Canine | Increases urine volume to decrease urinary concentration of struvite-forming constituents. |
| Target urinary pH | Canine pH 5.9–6.3, Feline pH 5.9–6.1 | Increases the solubility of struvite. |
| Vitamin E Beta-carotene | High | Neutralises free radicals to help combat urolithiasis. Vitamin C is not supplemented because it is a precursor of oxalate and may increase the risk of calcium oxalate formation with diets for struvite dissolution. |

Clinical note

A reduced dietary intake of magnesium and phosphorus results in decreased concentrations of these minerals in the urine.

At the same time, the solubility of struvite is increased in acidic urine, which leads to its slow dissolution. It is important to eliminate any urinary infection, because this may lead to a higher urinary pH and therefore prevent struvite from being dissolved.

MAIN INDICATIONS

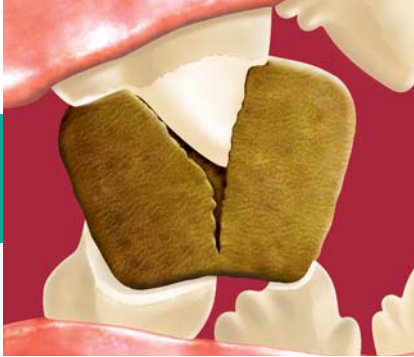
- Dissolution of struvite uroliths
- Initial management of struvite-induced FLUTD (Feline Lower Urinary Tract Disease)



**Clinically
PROVEN**



s/d is used to dissolve struvite uroliths



Tooth penetrating into a t/d kibble

Prescription Diet™ t/d™ Canine and Feline

General information

Prescription Diet t/d Canine, t/d Mini Canine and t/d Feline are complete diets that reduce:

- Plaque
- Tartar (calculus)
- Gingivitis

At two years of age, at least 70% of cats and 80% of dogs show signs of periodontal disease (disease of the tissues that support the teeth). Prescription Diet t/d is clinically proven to maintain gingival health and reduce the build-up of tartar, plaque and stain. Gingivitis is an inflammation of the gums, which if left unmanaged can lead to more serious periodontal disease.

To achieve maximum efficacy of Prescription Diet t/d Canine and Feline, the diets should be fed after a complete dental prophylaxis.

Definition

Periodontal disease: A bacterial infection that destroys the attachment fibres and supporting bone that hold the teeth in the mouth. Left untreated, these diseases can lead to tooth loss. The main cause of periodontal disease is bacterial plaque. Gingivitis is the first stage of periodontal disease.

Definition

Plaque: Plaque is a sticky, colourless film that constantly forms on the teeth. It is a gelatinous mixture of bacteria, protein from saliva and sloughed oral mucosa cells. Plaque is the pre-cursor of both tartar and gingivitis. When the plaque calcifies, it changes into tartar. Because plaque is filled with bacteria, it can cause inflammation of the gum tissue – gingivitis.

| KEY FEATURES | | KEY BENEFITS |
|----------------------------------|--|---|
| Total fibre Alignment of fibres | Increased Non-random | Fibre matrix resists crumbling. Kibble engulfs tooth before it splits and fibres wipe the tooth surface. |
| Kibble size | t/d: Large t/d Mini: Moderately large t/d Feline: Large | Provides an appropriate size for different breeds. Kibble engulfs tooth before it splits and fibres wipe the tooth surface clean. |
| Protein | Moderately reduced in t/d Canine. Controlled levels in t/d Feline. | Helps to limit a component of plaque. |
| Calcium | Moderately reduced in t/d Canine. Controlled levels in t/d Feline. | Helps to limit plaque mineralisation to tartar. |
| Target urinary pH for t/d Feline | Acid: pH 6.2–6.4 | Supports urinary tract health in cats. |
| Superior antioxidant formula | Added | Neutralises free radicals to aid dental health. |

MAIN INDICATIONS

- Reduction of accumulation of:
 - Dental plaque
 - Dental stain
 - Dental tartar (calculus)
- Reduction of gingivitis
- Reduction of oral malodour



Let your client know

t/d Feline has been proven more efficient than toothbrushing in controlling gingivitis and combating calculus.



The VOHC Seal is displayed on products that have been awarded the Seal, including the Hill's t/d products.

Let your client know

t/d Canine comes in two sizes – t/d Canine and t/d Canine mini. Both are large kibbles which allow the whole crown of the tooth to bite into the kibble before it splits, thereby wiping the tooth clean.



The European Veterinary Dental Society (EVDS) endorses the VOHC seal of acceptance.



The British Veterinary Dental Association (BVDA) endorses the VOHC seal of acceptance.



t/d is used to maintain gingival health and reduce the build-up of tartar, plaque and stain

Prescription Diet™ u/d™ Canine

Clinical note

u/d Canine is a low protein food and patients kept on it long-term should be monitored for development of protein deficiency.

General information

Advanced kidney disease is marked by a variety of potentially serious and even life threatening symptoms for your dog.

This condition is irreversible but may be supported with proper care and the right food. Prescription Diet u/d Canine helps to provide support in the compensation of in advanced kidney disease.

It also helps to reduce the formation of certain types of non-struvite urolithiasis, such as ammonium urate and cystine stones.

MAIN INDICATIONS

- **Advanced renal disease**
- **Reduction of formation of of urolithiasis:**
 - **Urate, oxalate, cystine and silicate**

| KEY FEATURES | | KEY BENEFITS |
|-------------------------------------|------------------------|---|
| Protein Calcium Nucleic acids | Reduced | Urolithiasis: Decreases urinary concentration of constituents of urate, oxalate and cystine uroliths. |
| Target urinary pH | Alkaline: pH 7.1–7.7 | Discourages formation and aggregation of non-struvite crystals. |
| Protein | High quality & reduced | Kidney disease: Reduces accumulation of toxic protein-breakdown products. |
| Non-protein calories | Increased | Ensures adequate energy, avoiding protein catabolism. |
| Phosphorus | Reduced | Helps slow progression of kidney disease. |
| Dietary buffering capacity | Increased | Helps counteract metabolic acidosis. Helps lessen muscle wasting. |
| Sodium | Reduced | Helps to slow progression of kidney disease. Helps limit fluid retention in early cardiac disorders. |
| B-complex vitamins | Increased | Combats increased urinary losses due to polyuria. |
| Copper | Reduced | Helps avoid copper toxicity due to defective elimination of copper by the liver. |
| Vitamin E Beta-carotene | High | Neutralises free radicals to help combat urolithiasis. Vitamin C is not supplemented because it is a precursor of oxalate. |

**Clinically
PROVEN**



Prescription Diet u/d Canine also contains a buffering system that helps to control metabolic acidosis (low blood pH caused by abnormal metabolism). This limits both the clinical signs as well as the progression of renal disease.
Produces alkaline urine (Urinary pH 7.1–7.7).

u/d is used to reduce urate, oxalate and cystine urolith formation

Prescription Diet™ w/d™ Canine and Feline

General information

Even minor weight problems can have an impact on the health and energy levels of pets. It is a problem that frequently begins with excessive calorie and fat intake as well as a lack of adequate exercise, but it can be controlled with an appropriate weight management programme. Obese pets should be fed Prescription Diets r/d Canine or Feline for a stricter control of calories and fat. Prescription Diets w/d Canine and w/d Feline are formulated specifically to help manage dogs and cats who are slightly overweight or prone to gaining weight, in a safe and effective manner.

Let your client know

When feeding a pet a higher fibre diet, it is important to make sure that fresh water is freely available. If the pet does not drink enough, it can become constipated.

Also let your client know that stool volume may increase.

| KEY FEATURES | | KEY BENEFITS |
|------------------------------|-------------------------------|---|
| Energy Fat | Reduced | Helps avoid weight gain. Helps lower lipid levels. |
| Fibre | Increased total dietary fibre | Weight maintenance after weight loss: provides increased dietary bulk which helps increase satiety and reduce hunger. Diabetes mellitus: helps reduce blood glucose fluctuation, which may help reduce insulin dose. Colitis: modifies bowel transit time. Constipation: helps increase intestinal motility. |
| L-Carnitine | Supplemented | Facilitates conversion of fat to energy. Helps maintain lean body mass. |
| Magnesium Phosphorus | Reduced | Decreases urinary concentration of struvite constituents magnesium and phosphate. |
| Protein | Reduced in w/d Canine | Decreases urinary concentration of struvite constituent ammonium (from protein). |
| Target urinary pH | Acid: pH 6.2–6.4 | Discourages the formation and aggregation of struvite crystals. |
| Superior antioxidant formula | Added | Helps neutralise free radicals to help avoid chronic conditions. |

MAIN INDICATIONS

- **Helps to prevent obesity:**
 - Less active pets
 - Neutered pets
 - Pets prone to being overweight
 - **Weight maintenance after weight loss with Prescription Diet r/d Canine or Feline**
- Diabetes mellitus
- Colitis
- Constipation (make sure the pet drinks)
- Reduction of struvite urolithiasis in obesity-prone pets



w/d is used to help manage pets with diabetes mellitus and help maintain optimal weight

Prescription Diet™ z/d™ ULTRA Allergen-Free Canine and Feline

Definition

Hydrolysed protein: protein that is broken down by enzymes to smaller units, called polypeptides and amino acids.

Definition

Dalton: a unit of measure for the weight of atoms. One dalton is defined as weighing $\frac{1}{12}$ as much as a carbon atom (roughly the same weight as a proton, so very little!).

Let your client know

z/d ULTRA Allergen-Free is available in both canned and dry formats for dogs and a canned format for cats to help with consistency in feeding.

General information

Food allergy and intolerance can be mild to severe and may include painful problems with the skin, ears and digestive tract. Prescription Diets z/d ULTRA Allergen-Free Canine and Feline offer virtually 100% reliability in the identification and management of food allergy. z/d ULTRA Allergen-Free Canine and Feline have been exclusively formulated with a unique hydrolysate that helps to reliably identify food sensitivity and resolves skin and GI signs related to food allergy.

This product is considered the 'Gold Standard' by veterinarians at Hill's to provide the ultimate food in identifying adverse food reactions or allergies in dogs.



MAIN INDICATIONS

Adverse food reactions with dermatological and/or gastrointestinal signs:

- Food allergy
- Food intolerance



KEY FEATURES

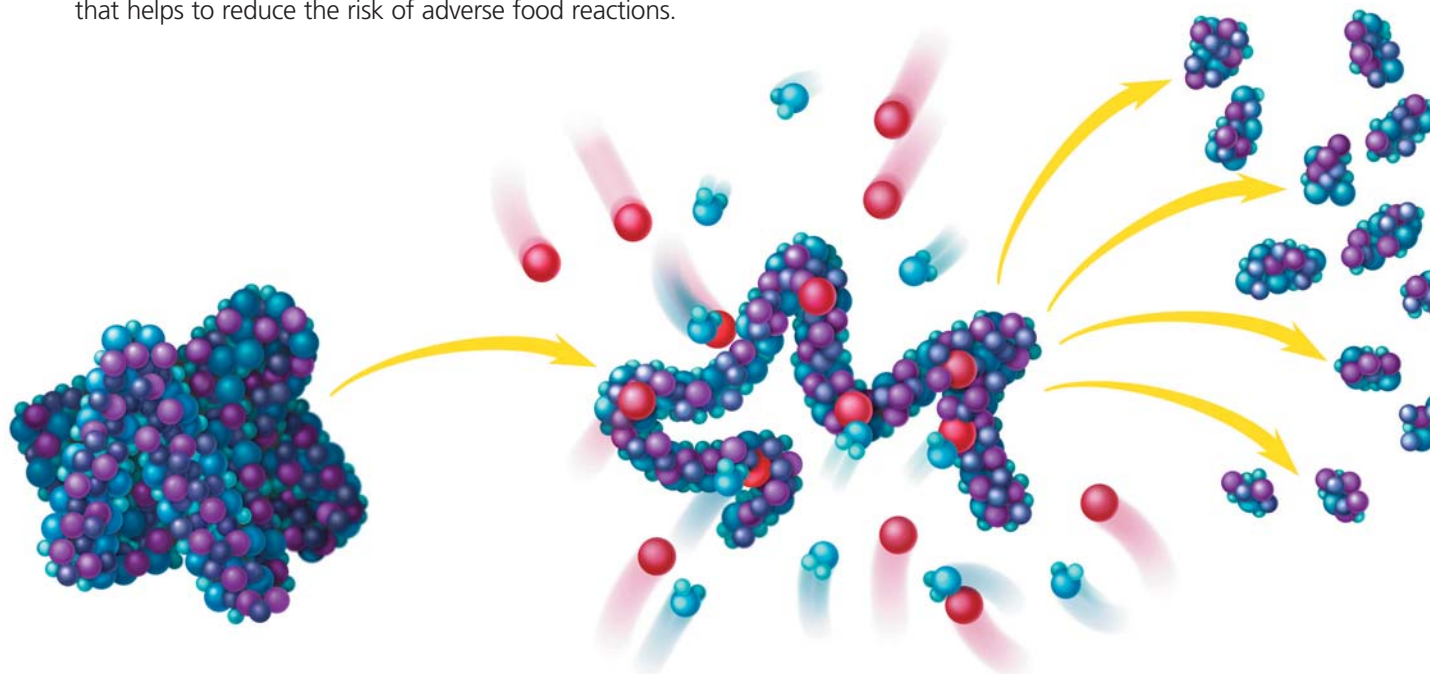
| KEY FEATURES | | KEY BENEFITS |
|------------------------------|---|--|
| Protein | Single animal source: chicken liver. Extensively hydrolysed to a maximum molecular weight of 3,000 daltons. Reduced amount. | Minimises the risk of allergic reaction. Gold standard elimination diet. |
| Carbohydrate | Single source: refined maize starch | Limits sources of sensitisation. |
| Essential fatty acids | Increased | Helps nourish the skin and coat. |
| Digestibility | High | Improves nutrient availability for patients with compromised digestive tracts. |
| Superior antioxidant formula | Added | Neutralises free radicals. |

z/d ULTRA Allergen-Free is used as an elimination diet to help identify and manage adverse food reactions

Prescription Diet™ z/d™ Low Allergen Canine and Feline

General information

Both Prescription Diet z/d Low Allergen Canine and z/d Low Allergen Feline have been exclusively formulated by veterinarians with a unique hydrolysate that helps to reduce the risk of adverse food reactions.



| KEY FEATURES | | KEY BENEFITS |
|------------------------------|--|--|
| Protein | Single animal source: chicken liver. Extensively hydrolysed to a maximum molecular weight of 3,000 daltons. Reduced amount. | Helps minimise adverse food reactions. |
| Carbohydrate | Single source Canine: potato Feline: rice | Adverse reaction to potato and rice are rare. |
| Essential fatty acids | Increased | Help nourish the skin and coat. |
| Digestibility | High | Improves nutrient availability for patients with compromised digestive tracts. |
| Superior antioxidant formula | Added | Neutralises free radicals. |

MAIN INDICATIONS

Adverse food reactions with dermatological and/or gastrointestinal signs:

- Food allergy
- Food intolerance

z/d Low Allergen Canine and Feline contain one more protein source than z/d Ultra Allergen-Free Canine. z/d Low Allergen Canine contains potato as an additional protein and carbohydrate source, while z/d Low Allergen Feline contains rice. Both Prescription Diets z/d Low Allergen Canine and Feline are suited to long term maintenance of dogs and cats with adverse food reactions.



z/d Low Allergen is used to help manage adverse food reactions

Building your portfolio

Photocopy and use the form below to keep a record of your answers to the questions below. Keep this information for your portfolio.

Exercise

a. Explain to Mrs Tiddles, in simple terms, why Hill’s™ Prescription Diet™ c/d Multicare™ is the most appropriate diet for her three-year-old cat, after her bout of urolithiasis.

b. Which Hill’s Prescription Diet would you recommend for a large dog which is prone to obesity and why?





vna
veterinary **nutrition** academy

LEVEL 1

™Trademarks owned by Hill's Pet Nutrition, Inc. ©2010

226130 EN 110325