MAKE EVERY MOUTHFUL COUNT

Tailored nutritional solutions to support cats and dogs with digestive disorders and during critical care
With gastrointestinal disorders, every mouthful counts

**Digestive Disorders are Amongst the Top 3 Reasons for Veterinary Consultations**

Enteropathic disease represented:

- 17.8% of dogs attending first opinion vet consult
- 10% of cats attending first opinion vet consult

**Clinical Signs**

There are a number of clinical signs associated with digestive disorders including:

- Change of appetite
- Vomiting
- Abdominal pain
- Diarrhoea
- Flatulence
- Dyschezia (difficult or painful defecation)
- Steatorrhoea (fat/mucus in stools)
- Constipation
- Haematochezia (blood in stools)

**The Search for Fast Solutions**

When cats and dogs have gastrointestinal tract disorders, the pet owner wants results fast!

In 12 months, the number of Google queries for "how to stop dog diarrhoea fast" has increased by 120% worldwide.

**‘Urban Myths’**

Pet owners may be influenced by differing and confusing ideas about nutrition

- A bland homemade diet, such as chicken with rice, may lack essential nutrients to help pets recover
- Gastrointestinal rest, which deprives intestinal cells of their metabolic fuel, may be detrimental to intestinal villi that are responsible for the absorption of nutrients

**The Need to Feed Them Precisely**

An impaired digestive function may affect how cats and dogs utilise the nutrients in their food and prevent them from reaping the full benefits of the diet

Appropriate nutrition can:

- Support the short and longer-term management of patients, helping to compensate for the nutrients they may be missing out on.
- Support pet recovery by supporting and nourishing the gastrointestinal tract.
- Regulate gastrointestinal motility and help reduce fermentation.
THE RECOVERY PROCESS

DURING HOSPITALISATION, INADEQUATE NUTRITION CAN WORSEN THE METABOLIC STATE OF PATIENTS

73% of patients suffer from an energy deficit during hospitalisation\(^8\)

66% of patients do not receive adequate nutritional support\(^8\)

Hospitalisation is often a cause of anorexia.

Hospitalised cats are particularly sensitive to stress and they can develop an aversion to the food they are given during their stay in intensive care.

3 days of anorexia are enough to produce severe metabolic changes and immune malfunction\(^8\)

CAREFUL PLANNING AND EXECUTION OF A NUTRITIONAL PLAN CAN BE KEY FACTORS IN THE SUCCESSFUL RECOVERY OF CRITICALLY ILL PATIENTS

HEPATIC INSUFFICIENCY

THE LIVER IS AN EXTRAORDINARY ORGAN, BUT THERE ARE TIMES WHEN A LITTLE EXTRA HELP IS NEEDED

CLINICAL SIGNS

THERE ARE A NUMBER OF CLINICAL SIGNS ASSOCIATED WITH HEPATIC INSUFFICIENCY INCLUDING:

- Jaundice
- PUPD (increased urination and water intake)
- Vomiting, diarrhoea
- Lethargy, weight loss
- Neurological signs
- Ascites
- Abdominal pain
- Urate crystal and stone formation

APPROPRIATE NUTRITION PROVIDING ADAPTED LEVELS OF HIGH QUALITY, HIGHLY DIGESTIBLE PROTEIN CAN SUPPORT CATS AND DOGS SUFFERING WITH LIVER INSUFFICIENCY
**FELINE NUTRITIONAL MANAGEMENT**

**DECISION TREE**

**CONSTIPATION**

**HAIRBALLS**

**EMACIATION, MALNUTRITION ANOREXIA**

**DIARRHOEA / VOMITING**

**LIVER DISEASE**

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**ASSOCIATED WITH CHRONIC / SEVERE CONSTIPATION**

**HYDROLYSED PROTEIN**

**ULTRA SOFT MOUSSE**

**RECOVERY LIQUID**

**HAIRBALLS**

**CONSTIPATION**

**LIVER DISEASE**

**DIARRHOEA / VOMITING**

**EMACIATION, MALNUTRITION ANOREXIA**

**ACUTE EPISODE OR NON-SPECIFIC ORIGIN**

**CHRONIC CLINICAL SIGNS**

**SUSPECTED PANCREATITIS**

**NO TUBE FEEDING**

**TUBE FEEDING**

**IDEAL WEIGHT / UNDERWEIGHT**

**OVERWEIGHT**

**NUTRIENT INTOLERANCE / NEED FOR HYDROLYSED PROTEIN DIET**

**NUTRIENT INTOLERANCE / Need for hydrolysed protein diet**

**POSIBLY ASSOCIATED WITH A NUTRIENT INTOLERANCE (TRIADITIS)**

**ACUTE / FELINE HEPATIC LIPIDOSIS**

**LIVER DYSFUNCTION, PORTOSYSTEMIC SHUNT IN ADULT CATS**

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**GASTROINTESTINAL FIBRE RESPONSE**

**GASTROINTESTINAL HAIRBALL**

**GASTROINTESTINAL RECOVERY**

**GASTROINTESTINAL KITTEN**

**GASTROINTESTINAL ADULT**

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**ADULT**

**KITTEN**

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**DETERMINATION**

For further information, please refer to the dermatology range.

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***Please note: these signs can be related to other gastrointestinal tract causes, which may have a tailored ROYAL CANIN® diet (e.g. for chronic kidney disease, ROYAL CANIN® RENAL is recommended)**

****In cases of tube feeding puppies, ROYAL CANIN® RECOVERY Cans are recommended**

*****In cases where kittens are diagnosed with liver dysfunction, contact the Royal Canin Nutritional Helpline for advice on 0800 717 800**
**CANINE NUTRITIONAL MANAGEMENT**

**DECISION TREE**

- **EMACIATION, MALNUTRITION ANOREXIA***
  - ADULT: No tube feeding
  - PUPPY: Tube feeding

- **DIARRHOEA / VOMITING***
  - PUPPY: No tube feeding
  - OVERWEIGHT: Against 
  - IDEAL WEIGHT / UNDERWEIGHT: For

- **CONSTIPATION***
  - NUTRIENT INTOLERANCE / NEED OF HYDROLYSED PROTEIN DIET
  - NEED FOR FIBRE INCREASE (E.G. FIBRE RESPONSIVE ENTEROPATHY)

- **NEED FOR FAT RESTRICTION**
  - (E.G. HYPERLIPIDEMIA, LYMPHANGIECTASIA, PANCREATITIS)

- **LIVER DISEASE**
  - LIVER DYSFUNCTION, PORTOSYSTEMIC SHUNT, COPPER HEPATOPATHY IN ADULT DOGS***

- **GASTROINTESTINAL**
  - PUPPY: Recovery Liquid (Hi-High Energy Liquid)
  - ADULT: Ultra soft mousse

- **RECOVERY**
  - RECOVERY Cans are recommended

- **GASTROINTESTINAL MODERATE CALORIE**
  - LOAF

- **GASTROINTESTINAL HIGH FIBRE**
  - LOAF

- **GASTROINTESTINAL LOW FAT**
  - Ultra soft mousse

**FOR FURTHER INFORMATION, PLEASE REFER TO THE DERMATOLOGY RANGE**

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**In cases of tube feeding, ROYAL CANIN® RECOVERY Cans are recommended**

**In cases where puppies are diagnosed with liver dysfunction or copper hepatopathy, contact the Royal Canin Nutritional Helpline for advice on 0800 717 800**
WITH GASTROINTESTINAL DISORDERS, EVERY MOUTHFUL COUNTS

Like us, you know that nutrition is the cornerstone of both short-term recovery and long-term management for gastrointestinal tract issues.

HIGHLY PALATABLE DIETS

Patients with gastrointestinal problems often show decreased appetite and weight loss so a palatable diet is vital.

GASTROINTESTINAL PUPPY AND KITTEN

Unique formulas to help manage gastrointestinal problems from weaning to adulthood.

GASTROINTESTINAL FIBRE RESPONSE CAT AND HIGH FIBRE DOG

Designed to manage cat constipation and dog fibre responsive enteropathy.

Different fibres have different effects on intestinal motility and on the gut microflora.

Puppies and kittens have immature digestive systems, which make them more prone to digestive issues. With adapted levels of protein and calcium, and specific textures to stimulate food intake, the diets facilitate transition from milk to solid food.

When a cat is experiencing constipation, it is not only the quantity of fibre that counts, an adapted fibre content is required.

When a dog presents with fibre responsive diarrhoea, a high-level of the right fibres is required.

A moderate level of fibres: soluble fibres combined with aspreen to help ease digestive transit and help obtain softer stools.

An increased level (20.8% as fed) of a fibre-blend and a majority of insoluble fibres.

GASTROINTESTINAL IS DESIGNED FOR THE NUTRITIONAL MANAGEMENT OF GASTROINTESTINAL DISEASES IN CATS AND DOGS

A highly digestible formula with balanced fibres, including probiotics, to support a healthy digestion and transit.

When you work with a clear and comprehensive range, it is easier to gain compliance from pet owners so they follow your expert recommendation after a diagnosis of gastrointestinal disease.

High energy formulas with adapted levels of nutrients.

A highly digestible formula with balanced fibres, including probiotics, to support a healthy digestion and transit.

Moderate calorie content to help maintain ideal weight.

For the nutritional management of dogs needing a fat restricted diet.

When a dog presents with fibre responsive diarrhoea, a high-level of the right fibres is required.

Different fibres have different effects on intestinal motility and on the gut microflora.
**ROYAL CANIN® GASTROINTESTINAL HAIRBALL**

A specific blend of fibres (including psyllium) helps eliminate ingested hair and controls hairball formation.

**GASTROINTESTINAL HAIRBALL**

Ingested hairs can accumulate into hairballs, which may cause constipation, appetite loss and vomiting.

**MEAN FAECAL HAIR EXCRETION**

MEASURED ON 24 CATS DURING A SHEDDING PERIOD FOR 4 WEEKS\(^9\)

<table>
<thead>
<tr>
<th>Diet Type</th>
<th>Hair Excretion in mg/kg bodyweight/day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative control maintenance diet</td>
<td>46.9%</td>
</tr>
<tr>
<td>Positive control classic hairball diet</td>
<td>59.3%</td>
</tr>
<tr>
<td>Test food hairball complex</td>
<td>80.9%</td>
</tr>
</tbody>
</table>

**A CRITICAL CARE RANGE FOR CATS AND DOGS**

THE ROYAL CANIN® GASTROINTESTINAL TRACT RANGE HAS PRODUCTS TO SUPPORT YOUR PATIENT’S CARE EVEN DURING THE MOST CRITICAL MOMENTS.

- Products with textures and technologies that facilitate tube feeding.
- High-protein levels to help maintain muscle mass during hospitalisation and convalescence.
- High energy density to provide daily energy requirements in a reduced feeding volume.
- Convalescent cats and dogs, or those in intensive care, often need extra nutritional support.

**MAKE PERIOPERATIVE FEEDING EASY WITH ROYAL CANIN® GASTROINTESTINAL PACKS**

**THE IMPORTANCE OF PERIOPERATIVE NUTRITION**

- Replaces energy stores depleted during pre-op starvation
- Helps maintain the intestinal mucosal barrier
- Helps reduce the risk of cachexia which can slow wound healing and affect immune function\(^11\)

**WHEN CAN GASTROINTESTINAL PACKS HELP?**

- Take-home nutrition after surgery (for any conditions where the animal is well enough to be discharged on the day of surgery or the day after surgery)
- To support patients during acute digestive upsets (except in cases of nutrient intolerance)
NUTRITIONAL NEEDS OF A HEPATIC PATIENT

The Royal Canin® Hepatic diets provide adapted levels of high quality, highly digestible protein to support cats and dogs suffering with liver insufficiency.

In cases of liver insufficiency, waste products generated by dietary protein metabolism are not processed normally by the liver. For example, ammonia is not converted to urea and can reach the systemic circulation, contributing to clinical signs associated with hepatic encephalopathy and ammonium urate crystals.

Whether hepatic copper accumulation is primary or secondary, it can lead to oxidative damage and on-going liver inflammation, and in some cases progression disease resulting in hepatic encephalopathy. Feeding a low-copper diet can support pets suffering with hepatic copper accumulation.

Cats and dogs suffering with liver diseases may have a reduced appetite. Royal Canin® Hepatic diets provide high energy content, which reduces meal volumes whilst still providing adequate energy requirements.

VET FOCUS: ONLINE EXPERT CONTENT

The worldwide journal for the companion animal veterinarian

Scan to discover more gastrointestinal tract content in the Veterinary Focus Online magazine.

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REFERENCES

1. Banfield data, 2018