

Complete maintenance food for dogs and cats



*I am looking for the right diet
for my dog or cat... what do I do now?*



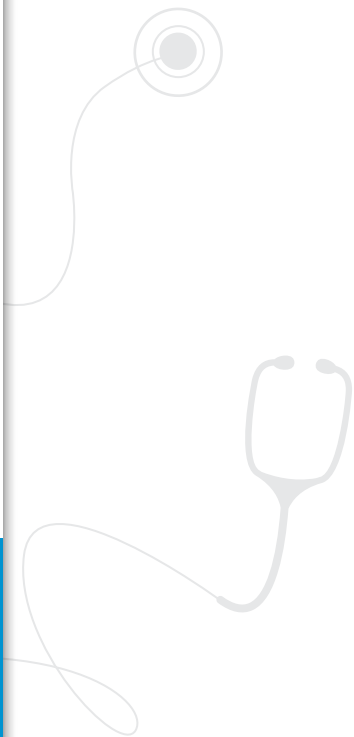
Veterinary exclusive



reliable and affordable dietary pet food



Veterinary exclusive



Your dog or cat requires food that suits his or her needs. During the growth of a kitten or puppy to an adult, it is important that the health and welfare of your pet are optimally supported with the right nutrients. The basis of this is a balanced diet. Maintenance diets, alongside regular exercise, good grooming and training make sure your dog or cat stays in an optimal healthy condition.

In this brochure you will find more information about the role a balanced diet and nutrient profile plays in various functions in the body. In addition, this brochure provides an overview of the TROVET range of maintenance foods, Puppy Milk and Kitten Milk.

During production of the food, care is taken to ensure a consistent quality and special attention to high palatability. The TROVET maintenance diets are, like all other TROVET products, free of chemical flavour, colour and fragrance enhancers.

Index

Nutrition as source of nutrients.....	4
TROVET Puppy Milk PMR / TROVET Kitten Milk KMS.....	12
TROVET Puppy CPF	13
TROVET Adult MXF, for dogs.....	14
TROVET Kitten CKF.....	15
TROVET Adult MXF, for cats.....	16
Castration/sterilisation	17
TROVET Sterilised SHF, for cats	20
TROVET Treats	21

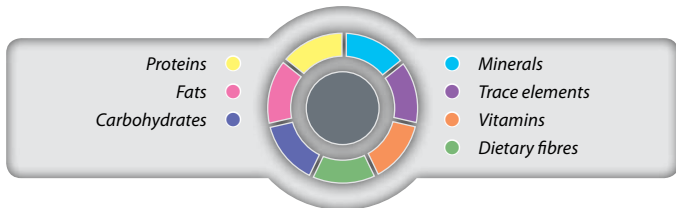
Today, there is much to do around dog and cat food. There are many opinions about whether or not certain types of food are good for dogs or cats, in which the opinions vary widely. But what is the basis of good nutrition?

It is important to realise what the purpose is of eating food. The purpose is to ingest all essential nutrients that are needed for the body to perform vital functions in the safest possible way. For humans, but also for dogs or cats, research and experience have been the way to find out which nutrients we need on a daily basis and what happens if we do not ingest a sufficient amount of these nutrients.

Nutrition as source of nutrients

Nutrients can be divided into several groups. The nutrients in the group of (macro)nutrients can either be used as building blocks or fuel for the body. These include proteins, fats and carbohydrates. Next to this, there are (micro) nutrients that provide no energy, but are very important for the functioning of the body. These include vitamins, minerals and trace elements. Finally, there are dietary fibres, which do not have a direct function in the body, but are very important for a proper bowel function.

● Nutrition as source of nutrients



Proteins

Proteins are important building blocks in the body and also serve as a source of energy. Body tissues, such as muscles, organs, skin and coat consist for a large part of protein. For maintenance of the body, a large amount of protein is required. In addition, proteins play an important role in many functions in the body, including the immune and digestive system. Proteins in the diet of dogs and cats are found in animal meat sources, such as muscle and organ tissues, but also in plants, such as cereals and soya. By using multiple animal and vegetable protein sources, a versatile protein pattern can be offered to prevent shortages. Dogs are able to get all nutrients from a vegetarian diet. By replacing animal protein by plant proteins, their nutritional requirements are perfectly met.

Amino acids are building blocks of proteins. Essential amino acids are not produced by the animal itself. This must be supplied through the diet.

Proteins are the building blocks of muscle. Without protein, it is impossible to build muscle. Animals that do not eat enough for a longer period of time start to break down proteins from muscle tissue to provide energy. For this reason, recovery food is often rich in protein.

We speak of a high-quality protein when the biological value and digestibility are high. Food that is not of great quality is only partly absorbed and used by the animal. To provide the required nutrients, a higher quantity of this food has to be given.

L-carnitine

Mitochondria provide body cells of energy. L-carnitine is an amino acid that can help mitochondria to convert fatty acids into energy, which may prevent fat accumulation.

Taurine

Taurine is an essential amino acid for cats. Animal tissue is the main source of this amino acid. A deficiency leads to serious heart problems. In addition, taurine plays a role in the reproduction, the sight ability and is an important natural antioxidant. Unlike dogs, cats can not get all the essential nutrients from a vegetarian food. Vegetable components do not provide taurine and will ultimately lead to heart problems.

Fats

Fats are a very valuable source of energy for the body. Additionally, fats are an essential part of the cell membranes in the body. Dietary fats also ensure that important vitamins, such as Vitamin A, D, E and K can be absorbed through the intestines.

Essential fatty acids

For the intake of essential fats, dogs and cats depend on the food, because the body is not able to make these fats itself.

Omega 3 fatty acids

A group of fats that the body cannot synthesise, but which are important for the proper functioning of the body, are the so-called omega 3 fatty acids. These fats are found in some plant ingredients such as linseed. However, the body is not able to efficiently convert them to the functional fatty acids, such as the fatty acids found in fish. They are important for proper brain function, visual function and a healthy skin and coat. Additionally, these fatty acids can help to reduce inflammatory processes.

Omega 6 fatty acids

Omega 6 fatty acids play an important role in the skin and coat condition. An important source of omega 6 fatty acids is linoleic acid. Linoleic acid is found

in many plant components. Oils such as sunflower oil and olive oil are rich in linoleic acid. A shortage of this fatty acid makes the skin more vulnerable for infections and dehydration. This can be seen when the quality of skin and coat is reduced.

Did you know... fats contain 2.5 times more energy than carbohydrates and proteins?

Carbohydrates

Like fats, carbohydrates are an important source of energy. In the body, glucose is the major form of energy. Organs such as brains and muscles mainly use glucose as an energy source. Glucose is therefore important in the body.

Carbohydrate sources in the diet are mainly of vegetable origin, in the form of starch. Grains, such as corn and rice, but also potatoes are the main sources of starch. When starch is broken down by the body, glucose is released. Dietary sources of animal origin, such as meat and organs contain negligible amounts of carbohydrates.

Certain types of carbohydrates may serve as food for intestinal bacteria. They promote a healthy intestinal flora and therefore the digestion of cats and dogs. A good diet should contain both enzymatic, digestible and fermentable carbohydrates. As a result, the food supplies both of energy that is directly utilised by the body itself, as well as by the bacteria which are housed in the intestine.

Dogs and cats are carnivores and by nature are used to eating diets low in carbohydrates. However, the body does need glucose, so the liver produces glucose from proteins that are ingested via the food. The conversion of protein to glucose produces protein-waste materials, which are excreted from the body through the kidneys. The addition of carbohydrates to the diet can ensure that less protein is needed for the production of glucose. This results in less protein waste and the liver having to work less hard to provide the body with glucose.

Many people think that dogs and cats, because of their background, are less able to break down starch. However, research has shown that both species are very capable of digesting starch. Dogs digest most starch sources for nearly 100% and for cats this is 90-95%. This is why carbohydrate sources in the diet of dogs and cats are a valuable source of energy, that also help to relieve the kidneys and liver.

Minerals and trace elements

An unbalanced diet can eventually lead to a shortage of vitamins, minerals or trace elements. Examples are anaemia due to lack of iron or skin problems due to a lack of zinc. The amount of minerals and trace elements that an animal needs on a daily basis is relatively low. Symptoms of a deficiency are sometimes visible after months or even years. In that period, the body could have already sustained some damage, for example to the joints and bones. This is the reason that dog and cat food is made from a combination of both plant and animal raw materials and supplemented with additional vitamins and minerals. This way a balanced diet is created, which will provide the correct daily amount of vitamins and minerals.

Minerals and trace elements are substances in the food that provide no energy, but are very important for the normal functioning of the body. Examples of minerals and trace elements are selenium, zinc, copper, calcium, phosphorous and magnesium. On the nutrient label, the content of minerals and trace elements is called crude ash. This group represents all minerals and trace elements in a diet and is at around two to eight percent in a dry food.

Copper

Copper is a trace element that contributes to the prevention of anaemia, by stimulating iron uptake in the intestines. Copper is also an important part of haemoglobin. Haemoglobin is a protein found in the red blood cells and gives the red colour to blood. One third of a red blood cell consists of haemoglobin. Haemoglobin carries oxygen from the lungs throughout the body. This provides oxygen to the tissues.

Iron

Iron is an essential constituent of haemoglobin, which provides the oxygen transport in red blood cells and other body cells. Iron deficiency causes anaemia, resulting in fatigue and reduced resistance.

Calcium and phosphorous

Almost one hundred percent of the calcium and around 86% of the phosphorous in the body is located in the skeleton. Calcium and phosphorous ensure stability and growth of the skeleton. In addition, calcium is responsible for the transfer of information, nerve impulses and contraction of the skeletal muscles.

The ratio of calcium and phosphorous is crucial in the diet for all puppies and kittens. The calcium content of the diet is extra important in large and giant breed puppies.

One of the main risk factors for the growing dog is a disturbance of the calcium-phosphorous balance. The most critical period in large and giant breed puppies is between two and five months. An imbalance in the absorption of calcium and phosphorous impairs skeletal development and increases the risk of bone malformations.

Magnesium

Together with phosphorous and calcium, magnesium contributes to the strength of the skeleton. In addition, magnesium is important when sending signals through the nervous system and it plays a role in muscle relaxation. Magnesium deficiency causes an inability to relax muscles.

Vitamins

Vitamins are nutrients that do not provide energy directly. They are, however, essential for the functioning of the body. Unlike minerals, some vitamins can be produced by the body itself. They may be sensitive to light, heat and exposure to oxygen. Vitamins that are not created by the body have to be absorbed by the body through the diet. Humans are unable to synthesise vitamin C. Dogs and cats are capable to synthesise vitamin C.

Vitamins can be divided into fat-soluble and water-soluble vitamins. Absorption of fat-soluble vitamins (vitamin A, D, E and K) takes place via the fats that are present in the food. Because of their lipid solubility, they can be stored easily. An excess of these vitamins may lead to toxicity.

Water-soluble vitamins (B-vitamins and vitamin C) can be absorbed without the intervention of other nutritional ingredients. A surplus can be easily excreted via the urine and causes no harm to the body. Because these vitamins are not stored in the body, a sufficient amount should be ingested via diet on a daily basis.

Vitamins as antioxidants

Vitamins C and E are known for their so-called 'anti-oxidative effect'. They protect cells against harmful environmental influences and thus support the functioning of the immune function.

Vitamin A and D in puppies

A proper amount of vitamin A in growing puppies is important to prevent bone damage. Vitamin D plays a role in the absorption and transport of calcium in the intestine. A surplus may also be harmful for the skeletal development.

Multi-functionality of dietary fibres

Dietary fibres are vegetable substances in the diet which can not be digested by the body and absorbed, but are important for the proper functioning of the digestive tract. These substances can encourage the muscles in the intestinal wall to contract, causing bowel movement. These fibres can also serve as a food source for bacteria in the gastrointestinal tract and are of importance for our immune system. Dietary fibres provide additional gut fill and stay longer in the gastrointestinal tract, which helps saturate the animal.

Just as people that eat brown bread instead of white bread, to get enough dietary fibres for an easy bowel movement, this also applies to dogs and cats. If they ingest too little fibre, this may adversely affect bowel and gut health.

Beet pulp

Beet pulp is a natural dietary fibre that gives mass and eases transport of the food bolus through the intestinal tract. Beet pulp can be broken down by intestinal microbes, which is important for the digestion process.

Cellulose, lignin and inulin

Indigestible and insoluble fibres cellulose and lignin stimulate the peristalsis and leave the body via the faeces. Prebiotic fructo-oligosaccharides from inulin support a good bowel function by activating the intestinal flora.

TROVET Puppy Milk | PMR / TROVET Kitten Milk | KMS

Puppy Milk and Kitten Milk is a complete milk supplement for young dogs and cats. It may happen that the mother animal is not able to produce enough milk or produces milk of poor quality. In that case, the replacement of complemental milk is necessary. Young animals that grow up the first four weeks with the help of a good milk replacer will be able to develop into a healthy young puppy or kitten. Natural mother's milk is always a better choice than a milk supplement. Artificial milk, therefore, should only be used in cases when the mother animal does not produce sufficient amounts of milk or when milk production is absent.



Puppy Milk and Kitten Milk are specifically formulated to meet the specific needs of new-born puppies and kittens. The composition corresponds as much as possible to those of natural mother's milk.

Tips:

- A correct preparation prevents lumps in the milk.
- The correct ratio prevents constipation in puppies and kittens.
- Weigh the puppies/kittens on a daily basis to monitor the growth. In case of insufficient growth, contact your veterinarian.
- After each feeding session, gently rub the belly in the direction of the anus of the puppy or kitten, to stimulate the intestines.

TROVET Puppy | CPF

The food you give your puppy in the first year of its life is crucial in the development to an adult dog. The growth of the young animal is very fast, but also of the gastrointestinal tract. Therefore, the puppy needs special, easily digestible food that contains sufficient amounts of protein and energy.

Research has shown that the nutritional needs of puppies remain substantially the same throughout the growth phase. This means that Puppy can be given throughout the entire growth phase of the puppy. The target weight of the mature animal determines the duration of the growth phase.

In the beginning, dogs mainly grow in height, wherein the skeletal development plays an important role. Afterwards, the muscles will start to develop.

For large and very large dogs it is recommended to talk to the veterinarian about switching to food for adult dogs.



The calcium and phosphorous levels of Puppy are adapted to support optimal bone growth. Puppy takes the rapid skeletal growth of large breed puppies into account. Here, the calcium-phosphorous ratio is of great importance.

<i>Category</i>	<i>Adult weight</i>	<i>Average growth time</i>
Mini	1-2 kg	Nine months
Small	3-10 kg	Nine months
Medium	11-25 kg	Twelve months
Large	26-50 kg	Fifteen months
Very large/ Giant	51-100 kg	Eighteen months

TROVET Adult | MXF, for dogs

Adult is a balanced and complete food for adult dogs of all breeds. The use of high-quality and highly digestible ingredients guarantee a very palatable food that perfectly fits the requirements of adult dogs.



Enrichment

A dog does not need variety in the provision of a complete food, because all the essential nutrients are present in the food. To make sure that the dog will be occupied with the food for a longer time, so-called 'enrichment' is possible. This also prevents boredom and gobbling. Examples include a custom tray, food balls, dog puzzles or hiding the food.

Senior dogs have different nutritional requirements than adult dogs. See the brochure 'My dog or cat is ageing... what do I do now?' for the most suitable diet for your dog.

TROVET Kitten | CKF

Kitten is a complete maintenance food for kittens, 4 weeks to 12 months of age. To minimally burden the still developing gastrointestinal of the kitten, high quality protein is used in and the food is made easily digestible. The product has a high energy and protein content for optimal growth and development and contains fructo-oligosaccharides for a healthy intestinal flora.



Research has shown that the nutritional need of kittens during the growth phase remains substantially the same. This means that Kitten can be given throughout the entire growth phase of the kitten.

TROVET Adult | MXF, for cats

Adult is a balanced and complete food for adult cats. Use of high quality and easily digestible ingredients and animal protein sources guarantee a very tasty food that is optimally tailored to the needs of the adult cat.



Senses

A cat's vision is very well developed, but they are unable to distinguish as many colours as humans. So the colour of the diet does not play a role in the choice of food for the cat. The sense of smell of the cat is many times better than that of humans. Therefore, the smell of food is extra important. Canned food has a stronger flavour than dry food. Dry food is preferred in the prevention of dental problems. Often a combination is given.

Tip: Gently heating canned food or adding some water to dry food ensures the release of the scent.

Poor drinkers

By nature, cats are poor drinkers. This can result in several health problems. Highly concentrated urine can lead to bladder problems. Studies show that restricted water intake can lead to obesity and kidney problems. Due to the correlation between obesity and kidney problems, it is advisable to stimulate the water intake of cats. Ways to stimulate water intake are: using a water fountain, allowing the cat to drink from the tap and permitting your cat to have favourite drinking spots. Feeding canned food contributes to water intake.

Feeding frequency

A cat has the preference to eat many small portions throughout the day. Studies show that supplying food throughout the day helps to reduce the risk of bladder problems. Spread the daily amount of food over four or more servings per day. It is not advisable to provide unlimited food.

Senior cats have different nutritional requirements than adult cats. See the brochure 'My dog or cat is ageing... what do I do now?' for the most suitable diet for your cat.

Castration/sterilisation

Popularly we speak of castration in males, and of sterilisation in females. In veterinary medicine 'castration' and 'sterilisation' do not indicate gender, but the type of surgery. Castration is the surgical removal of the reproductive organs in both male and female animals (testes and ovaries, respectively).

Because many cat owners want to get rid of the 'difficult' behaviour of their animal, this surgery is frequently used.

When sterilising a cat, the oviducts or sperm ducts get interrupted. The animal is infertile after this procedure, preventing unwanted litters, but the animal will still be hormonally active. Hormones may result in unwanted behaviour to continue. For this reason, castration is almost always chosen. Castration also prevents health problems caused by hormones.

The benefits of castration are:

Female cats

- Disappearance of the heat period
- No unwanted litters
- Reduced chance of getting malignant mammary tumours at old age

Male cat

- Less risk of spraying or urinating inside the house
- Less strong odour of urine (tomcat scent)
- Less urge to stray and therefore less likely to fight

An important disadvantage of castration is that your cat has an increased chance to develop obesity. The energy demand of castrated cats can be up to 30% less than that of an intact cat. This is due to a reduced activity and a changed metabolism.

Change in nutritional requirements after castration

The nutritional requirements of cats changes after castration. They are less able to regulate food intake and are less saturated after a meal. This results in the cats continuing to eat for a longer time. The increased intake of energy may lead to obesity.

The lipid metabolism of cats is altered after castration, resulting in more fat to be stored in the body, increasing the chance of developing obesity.

In addition, castrated cats are less active. Less active animals are more sensitive to blockages of the gastrointestinal tract (constipation).

Risks of obesity after castration

The impact of obesity on the health of your cat are diverse. It makes your cat more susceptible to certain diseases and the life expectancy may decrease significantly.

> ***A shorter life expectancy***

Overweight cats usually live less long than cats with a healthy weight.

> ***Increased risk of joint problems***

The stress on the joints is increased due to the greater body weight. The joints will wear out more rapidly.

> ***Skin and coat problems***

Obesity results in an increase in body size. This quickly leads to the cat not being able to look after itself. In addition, the accumulation of subcutaneous fat leads to the formation of skinfolds. The lack of hygiene between the skinfolds increases the risk of developing inflammations.

TROVET Sterilised | SHF, for cats

Sterilised is specially formulated to meet the changing nutritional requirements of castrated cats. It can be given to kittens from six months of age and older.

To prevent overweight, the energy density of Sterilised is lowered. This way a normal meal volume can be given, despite the reduced energy requirement.

In addition, extra dietary fibre from cellulose, beet pulp and psyllium are added to the diet. These fibres provide extra gut fill and stay in the digestive tract for a longer time, causing your cat to be less hungry after meals. These fibres also help to reduce the occurrence of constipation. Cellulose is an insoluble fibre that promotes intestinal peristalsis and leaves the body through faeces. Beet pulp and psyllium absorb moisture from the intestines, which creates a smoother stool for the prevention of constipation and diarrhoea.

Prebiotics in the form of fructo-oligosaccharides (FOS) from inulin support a proper bowel function by activating the good intestinal flora. Essential fatty acids EPA and DHA support a healthy intestinal flora.

Due to reduced activity, urine resides in the bladder for a longer period. This increases the risk of bladder stone formation. Sterilised acidifies the urine and can be used to prevent bladder problems in the form of struvite. The slightly elevated sodium content promotes water intake, causing the cat to urinate more often and reducing the risk of bladder stone formation.



TROVET Treats

TROVET has an extensive range of responsible rewards, also known as treats. Most treats are suitable for both healthy dogs and cats, as well as dogs and cats with a special dietary requirement or prescription diet. The TROVET treats are cookies in different shapes and are an ideal reward that can be used during training, after a walk or just as a snack.

The special thing about TROVET treats is that, besides the taste, they are formulated in such a way that they fit well with various diets. Giving 'regular' treats to dogs or cats that get dietary food, can negatively affect the efficacy of these foods. Therefore, carefully choose a treat that fits the situation of your dog or cat. Always ask your veterinarian for more information and advice. TROVET treats are available exclusively via your veterinarian.

For pet owners, there is a more detailed treat brochure 'I want to give my dog or cat something extra besides dietary food... what do I do now?'. You can find these at your veterinary practice or at www.trovvet.com.





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TROVET

De Vergert 4 - 6681 LE Bommel - The Netherlands

T: +31 (0)481-470240 | E: info@trovet.nl | W: trovet.com