

## FACT SHEET

### Puppy Feeding And Care

*The aim of this information sheet is to help explain the vital importance of rearing your new puppy on the best possible natural diet, feeding only natural ingredients and avoiding the unnecessary and sometimes harmful additives present in many modern day dog foods.*

As increasing numbers of us become health conscious we are slowly realising the extent to which unnecessary additives are used in foods today. As we become aware of our own diets we believe that, like people, pets are what they eat, or rather, what we feed them. Therefore we should take as much care with our pet's diet, as we do with our own.

A natural diet is particularly important during the early growth stages of a puppy in order to enhance the puppy's health, performance and longevity and reduce the risk of infections and allergy related diseases as they grow and develop.

#### Neonatal care

As is the case with all newborn mammals, it is important that puppies receive adequate amounts of good-quality colostrum (mother's first milk) shortly after birth.

Every effort should be made to see that they nurse from the bitch soon after birth. The pup receives 90% of its passive immunity from the colostrum and the remaining 10% prior to birth across the placenta from the mother's blood. Holding a puppy up to a nipple soon after birth, helps ensure adequate ingestion of colostrum. If this is not possible you will need to source an appropriate colostrums/milk replacement formula from your Veterinary Surgeon.

During the first few weeks of life the puppy should just eat and sleep. Much of this is activated sleep during which the puppy twitches and jerks. This activity is important for muscle development. The puppy should nurse vigorously and compete with littermates for a nipple. At birth their eyes and ears are sealed shut, the eyes open between 10 and 16 days and the ears begin to function between 15 and 17 days.

The puppy's body temperature is 34.5°C – 36°C for the first two weeks of life. They have no shivering reflex at first and therefore depend on an external heat source, such as the mother to sustain normal body temperature: a heat lamp is therefore very important in these first weeks as the mother will need to leave the nest on occasion.

At six days of age the puppies can shiver and begin to be self-sustaining. From week 2 to week 4 of life, the body temperature rises to 36°C – 37°C and after the fourth week is near to adult body temperature. By 18 days old the puppies begin to walk which helps stimulate and maintain a higher body temperature. For puppies with the bitch and littermates, the environmental temperature should be 21°C. If the puppy is separated from the bitch and littermates, the environmental temperature should be maintained at 30°C (86°F).

Neonatal puppies have little subcutaneous fat. Their energy source is almost entirely glycogen, which is rapidly depleted after birth and not restored until several days of nursing. If the puppy does not receive adequate supplies of nourishment it soon becomes cold, weak and debilitated. To prevent this problem, puppies should be kept in a warm environment, weighed daily, and supplementary feeding instituted, if weight gain is not normal.

A steady weight gain and normal stools are the best indications of good health and the adequacy of the puppy's diet. The puppy's capacity for growth is phenomenal. They should gain weight the first day of life and continue to gain daily. As a guide – puppies should gain 1-2lb/day/lb (2-4g/day/kg) of anticipated adult weight.

Weighing should be done frequently to ensure the growth rate is adequate. Most dogs reach 50% of their mature weight by about 4 months of age. Adult weight is approached at approximately 1 year of age. The growth rate of giant breeds i.e. Great Danes, does not slow until about 18 months of age. Mature weight of giant breeds is not reached until the dogs are almost 2 years old.

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While nursing, the pups should be observed to ensure they all get a chance to nurse. If one is continually crowded out (as can happen in a large litter) it should be assisted in reaching a nipple. It is essential that the puppies receive adequate amounts of the bitch's milk. If the bitch is healthy and well nourished, whelping is uneventful and no post-whelping problems arise. Nutritional management of the litter will be handled completely by the mother for the first 3 weeks. If the puppies cry constantly, or do not achieve the weight gain described, they are probably not receiving enough milk.

If the bitch is not giving enough milk she should be examined carefully to ensure no physical condition is causing the problem. If there is nothing apparent, make sure she is receiving sufficient quantities of quality protein and fat in a balanced diet.

Naturediet Puppy/Junior is ideal at this time. The added egg is a particularly beneficial and available protein source, and the diet has adequate quantities of essential fatty acids and minerals that help to optimise milk production.

It may be necessary to supplement the puppies if the bitch really cannot cope, and all remedial steps have been taken.

## Feeding puppies before and following weaning

Puppies are normally weaned from their mother's milk onto solid food from three to four weeks of age. Before your puppy leaves its mother it should be fully weaned onto a solid food, eating at least four meals each day.

Feeding in preparation for weaning should start when the puppies are three weeks old. Naturediet Puppy/Junior is ideal for starting puppies because it is very easily digested and tasty. A thick gruel can be made by mixing the puppy diet either with warm water or any milk supplement already being fed. It is best not to use cows milk as the lactose content of cows milk is higher than that contained in the milk of the bitch and this can cause diarrhoea: goats milk may suffice but a milk formula may hold a more appropriate blend of vitamins and minerals.

Puppies can be fully weaned as early as 4 weeks although 6 to 7 weeks is more desirable as their stomachs may not be large enough to cope with only 4 meals per day. By this time they must be able to eat enough food to meet their needs. In addition, close human contact should be encouraged when the puppies are 4 to 10 weeks of age.

When a puppy first leaves its mother and litter mates, being placed in a new environment can be a stressful experience. Give your puppy time to settle into his new environment, you may find that your puppy might cry at night when left for the first time.

Make sure that he/she has a bed, which is positioned in a quiet area away from drafts. To help your new puppy feel secure when it first leaves its mother, a ticking clock will help portray mums heart beat and a hot water bottle wrapped up in a blanket and placed into its bed will help prevent him/her from missing the warmth of his/her litter mates.

A cage/crate with a cover draped over the top can help as the puppy will feel safer as it provides an ideal place to secure puppy overnight and when left alone indoors and becomes their 'den' where they can go for peace and quiet: the size of crate should enable the dog to stand up and turn around with ease.

Sometimes puppies can be so stressed by the change that they may not eat for a day or so or may even develop stress-related diarrhoea. A few accidents are almost inevitable as they become accustomed to a new routine and environment: try to reassure your new puppy and spend time with him to relieve this stress. Once your puppy realises that your house is its new home and you and your family are his/her new "pack," your puppy will settle down into its new routine and be happy to eat and sleep.

## Diets for growth

Once weaned, puppies grow at a rapid rate, particularly during the first six months of age, achieving a growth rate which we humans can take up to 15 years to achieve.

As with humans, a dog's nutritional needs change throughout their lives. The growth stages of a dog are commonly referred to as the "puppy rapid growth stage", "the adolescent stage", "adulthood", and the "senior" stage. The most important growth stages are the puppy and adolescent stages, these generally being the first six to eighteen months, depending on size and breed.

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The food fed to weaned puppies should be specific for this purpose. It is best to use a complete balanced food such as Naturediet Puppy/Junior. Do not add vitamin or mineral supplementation because excesses of minerals such as calcium and phosphorous or the fat-soluble vitamins can be harmful. Feeding a soft, easily digestible food is particularly important. The owner should be certain that the pup has sufficient food during its growth phase. Puppies require less food if a high quality diet is fed as inferior diets are less digestible.

If poor quality foods with low digestibility are selected, the resulting high intake will only further reduce the digestibility of the food. Owners should be guided by the performance of the diet rather than by how much the puppy eats.

A problem often develops clinically when pups, particularly of large breeds, are fed low calorie foods in an effort to save money. In these instances, because of the low calorie density, the pup cannot possibly consume sufficient quantities of digestible nutrients to meet the requirements for optimal growth. As a result puppies being fed these diets may have pot-bellies, with slower growth, inferior muscle and skeletal development, and decreased resistance to infectious diseases. Feeding the correct amount of a high quality diet such as Naturediet Puppy/Junior will prevent the development of these problems.

Well-nourished, vigorous pups have a greater resistance to disease and to the devitalising effects of internal parasitism than malnourished pups. A deficiency of certain amino acids, vitamins and energy can markedly reduce several aspects of an animal's immune response. Dietary protein deficiency has been associated with skeletal disease and an increased incidence of hip dysplasia was observed in growing dogs fed on low protein, poor quality diets.

## Feeding procedures for growth

The goal in feeding weaned puppies should be to attain the average growth for the breed. From the standpoint of health and longevity, the optimal growth rate is most likely to be the average growth rate for that breed. Overfeeding for maximum weight gain should be avoided. Slight underfeeding is preferable to overfeeding. In contrast to mild underfeeding, overfeeding during growth predisposes to obesity and, in larger breeds, to skeletal problems.

Excess fat deposition during growth predisposes to obesity throughout life. Obesity is associated with several serious medical problems in adult dogs that limit their activity, productivity, longevity and enjoyment of life. When the detrimental effects of obesity in the adult are considered, the "cute" fat "roly-poly" puppy is probably the one with a higher risk of health problems throughout its life.

*See our feeding guide for details of amounts to feed*

Growing puppies should be fed only a high-quality balanced growth dog food, and water. Supplementation with vitamins, minerals, or protein is not necessary and in many cases, even harmful. High quality growth foods, such as Naturediet Puppy/Junior are nutritionally balanced and therefore have the correct amount of all nutrients. Ideally puppies should be meal-fed the proper amount of a good-quality dog food designed for growth and should not be supplemented with anything, although chewing and gnawing items are a requirement.

## Feeding guide

Puppies need to ingest large amounts of nutrients relative to their size to supply the energy required for their growth and play. This nutritional requirement does not necessarily mean a need for special foods. However the young puppy will only have a small stomach. For this reason, foods have been formulated which are capable of supplying their enormous energy requirement in an easily digestible form, with a higher concentration of nutrients and calories.

Although some puppies can look fully-grown at six months they are still developing mentally and physically, developing muscles and bone strength. Therefore dogs of all breeds will still have a fair amount of growing to achieve and require a greater quantity of nutrients than a fully grown adult. At this stage the young adolescent dog's stomach will be almost fully developed and therefore the dog will be able to digest food in larger quantities.

The nutritional requirement for puppies is two or three times as much as an adult of the same weight. Naturediet Puppy/Junior has, for this reason, been specially developed to provide both the correct quality and balance of natural nutrients, whilst being highly digestible.

The stomach of a puppy is very small, so the amount of food needs to be divided into at least 4 small meals a day. When a puppy is very young, he or she should eat more frequently. By 6 months of age twice daily feeding is sufficient.

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Dogs are individuals and therefore their metabolism varies. Special care should therefore be taken to monitor that your puppy is gaining weight correctly, not losing or becoming obese, although it is very unlikely that an active young dog will become overweight due to the way in which they use up vast amounts of energy playing.

We recommend that when a puppy approaches 20–24 weeks of age the puppy is changed from Naturediet Puppy/Junior to products in the Naturediet adult range, with the exception of Naturediet Senior/Lite which is lower in calories. The adolescent dog is then able to have a choice of varieties. Different breeds grow at different rates; small breeds will finish their maximum growing cycle at between 6 and 9 months, whilst giant breeds will take over 18 months.

## Detailed Feeding Guide

The following amounts should be offered to your puppy on a daily basis: if any part of the meal is left untouched, cover and keep to represent at the next meal. It is suggested that in the early days of your puppy's life, once he is weaned, that he is fed four times a day to allow his stomach to digest the food. This can be decreased to three meals a day and ultimately, if required, two meals a day.

Bodyweight In kg	Weaning to half grown up to 6 months	Bodyweight In kg	Weaning to half grown up to 6 months
1	180g	23	1910g
2	310g	24	1970g
3	420g	25	2040g
4	510g	26	2100g
5	600g	27	2170g
6	690g	28	2220g
7	780g	29	2280g
8	870g	30	2338g
9	950g	31	2390g
10	1020g	32	2460g
11	1090g	33	2520g
12	1180g	34	2570g
13	1260g	35	2630g
14	1310g	36	2680g
15	1380g	37	2740g
16	1460g	38	2790g
17	1530g	39	2840g
18	1580g	40	2900g
19	1660g	41	2950g
20	1730g	42	3000g
21	1790g	43	3060g
22	1860g	44	3120g

Each pack contains 390g so divide each of the above quantities by this figure to give the number of packs required per day.

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## Water

All Naturediet products are complete meals and therefore no supplements are necessary, unless advised by your vet. They are made up from the finest quality meats, brown rice, noted for its non- allergic properties and vegetables. They are highly digestible and nutritious in a firm but moist format containing all essential vitamins and minerals required by the body.

It is worth realising that the most important ingredient to any diet is water, without which your pet, and for that matter all animals, are unable to survive. This is because water fulfils many roles within the body.

- Water is the principal constituent of blood, and therefore provides a vital transport medium for oxygen and nutrients to the tissues, and waste products and carbon dioxide out of the body
- Water contributes to temperature regulation both inside the body and by evaporation through the skin
- Water is also involved in digestion in a process called hydrolysis, which splits the chemical compounds of other nutrients and allows them to then be used within the body
- A dog's body has limited capacity to store water therefore it is essential that dogs should always have free access to fresh water. It is worth noting that tap water in certain areas contains trace elements in levels large enough for a dog's keen senses to detect, this may deter your pet from drinking sufficient water; try substituting the water with running, rain or filtered water and observe for any change in drinking habits

All dog food will contain some moisture content, a dry food will only contain about 10%, whilst moist foods vary; Naturediet contains 75% natural cellular moisture.

When feeding a dry food almost all the dogs' moisture requirements have to be obtained from the drinking water thus the dog would need to drink a lot more, which can be unnatural. Failure to take on sufficient water however will cause a breakdown in the digestive hydrolysis process and can cause further digestive problems.

## Frequently asked questions

### Do I need to give my dog milk?

The simple answer is no. Once weaned a dog does not need milk in his diet. The enzyme necessary for the digestion of lactose (the sugar in milk) is only produced by young mammals during the early months of life. Once weaned, the body stops producing this enzyme, which is why so many dogs appear lactose intolerant. Where it forms part of a weaning programme, milk formula specifically developed for dogs, or goat's milk is preferable.

### Do I need to give my dog supplements?

Sometimes people might wish to add a vitamin and mineral supplement to their puppy's diet, although this is not necessary, small amounts in moderation will do no harm. It is however advisable not to over supplement as vitamins and minerals in excess can prove toxic and be as detrimental to health as a deficiency.

### Can I feed my dog eggs?

Eggs can be used as a supplement and are an excellent source of nutrients however they should never be fed in large quantities and certainly never raw. This is because egg whites contain an enzyme called avidin; this interferes with the B vitamin Biotin making it unavailable to the dog's body, causing a deficiency. In the early stages of this deficiency it will affect the skin condition causing a scaly dermatitis but can ultimately affect growth and development.

Uncooked, the raw egg may also introduce infectious agents such as Salmonella to the dog and whilst most adult dogs have acidic stomachs able to destroy pathogens, a young or weak dog may succumb to infection more readily.

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## **Can I give my dog bones, chews and tidbits?**

Tidbits given as a reward for good behaviour are acceptable, but this practice should be kept to a minimum.

Do not give chicken or pork bones as these can splinter and harm the dog.

If you can find healthy treats, such as wheat and chemical free nibbles, these can be used in moderation and help with training exercises. Raw hide chews are fine for adult dogs, but not advisable for puppies as they can get stuck in the throat. Teething puppies do need safe things to chew. A nylabone or knotted ragger are good and safe, even better is raw carrot or broccoli stem. Your puppy needs to know what is his to chew, and what is yours and not to be chewed!

Chewing and gnawing items are essential throughout the dog's life for tooth and gum hygiene: puppies will go through a teething phase between 3 and 7 months of age where they will need to chew everything and anything, the milk teeth will eventually fall out to be replaced by adult teeth. Chewing should be supervised in all dogs in case of choking/gagging but vigilance is essential in puppies: a crate is useful in containing the puppy when no-one is around to prevent access to your things.

Never feed your puppy from your plate or table as this will only encourage them to beg at every meal time. We recommend placing them in their crate or in another room whilst you eat. This is also an act of dominance on your part and instills in them their lower rank within the 'pack'.

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