



PUPPY NUTRITION 101

A good puppy feeding plan should support healthy growth, support strong immunity, maximize trainability and learning, reduce obesity, and reduce orthopedic diseases.

Congratulations! You are a proud new puppy parent! Puppies have special nutritional requirements and special attention must be given to the type of food chosen, and the method of feeding. The food recommended by the breeder is not always your best choice. Do your research!

Here is some info to ensure you are choosing an appropriate food for your growing fur baby:

STATEMENT ON BAG:

Commercial dog food should be formulated specifically for puppies, in particular large breed puppies (over 50 lbs adult weight) and the following statements should be printed on the bag:

XXX (brand/formula) is formulated to meet the nutritional levels established by the AAFCO Dog Food Nutrient Profiles for **All Life Stages**

XXX is formulated to meet the nutritional levels established by the AAFCO Dog Food Nutrient Profiles for **gestation/lactation and growth, including growth of large size dogs** (50 lb. or more as an adult).

XXX is Formulated to meet the Nutritional Guidelines established by the AAFCO Dog Food Nutrient Profiles for **All Life Stages excluding the growth of large size dogs** (50lbs or more as an adult).

If the statement indicates adult maintenance - then it is NOT appropriate to feed your puppy.

Growing puppies have specific protein, calcium, phosphorous and energy density requirements which need to be provided in a puppy formulated food



PROTEIN

Protein requirements are at their highest during the puppy phase. Your fur baby is rapidly growing and cellular growth and division is at maximum rate and providing a high quality, highly digestible protein from multiple ANIMAL sources will ensure your dog is getting the best range of all the amino acids necessary to build a strong body.



CARBOHYDRATE AND FAT

Although dogs physiologically do not require carbohydrates in their diet and there are no specific recommendations for carbohydrate levels for growing dogs, it has been suggested that foods contain about 20% digestible carbohydrate until puppies are four months of age to ensure optimal health. In one study, feeding young puppies a food high in protein and fat without carbohydrate resulted in lethargy, poor appetite, diarrhea, and mortality, which was attributed to fatty liver syndrome. However, another study failed to confirm these results. Body fat is higher when puppies are fed a very high-fat, low carbohydrate food during growth.



ENERGY DENSITY

Puppies should be fed to grow at an optimal rate, but not a maximum rate. A dog will reach its full adult size potential regardless of its growth rate. Feeding puppies for maximum growth and speed is dangerous and increases the risk of skeletal deformities and decreases life expectancy.

Obesity in puppies is dangerous, as once the puppy has gained weight it is very difficult to return to a normal maintainable healthy weight. Obesity in puppies can easily lead to obesity in adult hood. Obesity increases risks of cancers, diabetes, muscular and skeletal diseases, heart disease, heat intolerance and reduced life expectancy. Puppy food has a specific energy density and amounts to be fed should be controlled and adjusted bi weekly based on their growth rate.



CALCIUM

Puppies, *in particular large breed puppies*, lack the ability to regulate calcium intake at a young age. This regulation system stabilizes as the dog approaches one year old and their growth significantly slows. Excess calcium in the diet can lead to bone and growth disorders such as Canine Hip Dysplasia, Osteochondrosis, Hypertrophic Osteodystrophy and Panosteitis particularly in large breed dogs. Adult maintenance food and some raw formulas have calcium levels that are too high and can increase this risk.



OMEGA 3 ESSENTIAL FATTY ACIDS

One supplement you should consider is a high quality Omega 3 supplement. Two essential Fatty Acids: DHA (Docosahexaenoic acid) and EPA (Eicosapentaenoic acid) are both Omega 3 Fatty Acids and have been shown to increase trainability in puppies, improve vision and increase psycho-motor performance tasks. The supplementation of Omega 3 fatty acids into a puppy's diet depends on the quality of the puppy food consumed. DHA is essential for growth, brain and retinal health. Natural sources of DHA are fish oils (menhaden, anchovy, sardines) fish meal, eggs, and organ meat. EPA has natural anti-inflammatory processes and has been shown to support a healthy gut and increased immunity.

The overall amount of DHA and EPA in supplements varies immensely. Current recommendations suggest choosing supplements that provide approximately 25 mg/kg body weight of DHA and 40 mg/kg body weight of EPA per day.

ADDITIONAL SUPPLEMENTATION AND TREATS

Do not provide vitamin and mineral supplements if on a balanced commercial diet. Treats should be limited to no more than 10% of the total food fed and should also contain the same energy content and calcium ratios as the kibble/prepared food they receive at regular mealtime. Treats are not complete and balanced for puppies. Overuse of liver treats can result in diarrhea and an excess of copper and Vitamin A toxicity.

SPAY AND NEUTER EFFECT ON ENERGY LEVELS

Female spayed dogs may gain weight as estrogen levels decrease after surgery. Estrogen levels of intact dogs has a suppressive effect on the appetite. When estrogen levels decrease the appetite suppression is less and overeating might be more likely. Male neutered dogs often have decreased physical activity that often is a result of decreased roaming behaviour and feeding may require limiting the daily energy intake to prevent weight gain. Once your dog has been spayed/neutered the amount of food may need to be decreased by as much as 30% depending on your puppies activity level, growth rate and body condition score.

FEEDING METHODS TO AVOID DURING RAPID GROWTH

Keeping your puppies bowl always full and allowing unlimited amount of food should be avoided during rapid growth. Free choice feeding can produce extra body fat, can contribute to future obesity, can result in skeletal deformities in giant and large breed dogs and can contribute to orthopaedic diseases.

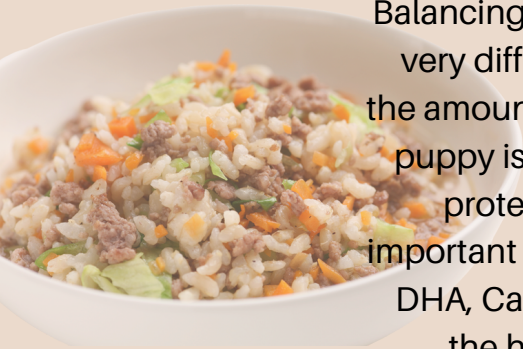
The daily amount of required food should be divided into 2-4 servings for though out the day. This feeding method can control the rate of growth and the puppy's body condition and ensure the proper amount of all macronutrients, vitamins, and minerals are consumed.



HOME PREPARED DIETS FOR PUPPIES

As tempting as it is to find DIY recipes on the internet that look colourful, fun and exciting to make, puppies should NOT be fed a DIY homemade diet. Balancing a homemade meal to ensure all nutrient requirements are met is very difficult to achieve. The growth rate of a puppy changes rapidly and the amount of food would have to be altered quite frequently to ensure the puppy is not being overfed or underfed. The energy density, digestibility, protein, fat and carbohydrate and vitamin and mineral amounts are all important and are difficult to measure and determine on homemade foods. DHA, Calcium & Phosphorous and their associated ideal ratios are vital to the health of the puppy and also change throughout puppyhood. It is difficult to achieve perfect accuracy and consistency in a homemade diet and requires expert knowledge.

Hire a professional formulator.



RAW DIETS FOR PUPPIES

There are new commercial products on the market now that are available that have been formulated specifically to meet the nutritional needs of growing puppies. Be sure to check the label for the nutritional statements to support their marketing claims.



KEEPING RECORDS

Records that should be kept include body weight, food intake amounts (including treats) and their body composition score. These records should be updated every two weeks and the feeding plan adjusted depending on the growth of the puppy.

HOW LONG DO YOU FEED YOUR DOG PUPPY FOOD

Depending on your puppies breed, growth rate and spay/neuter status you may need to keep your fur baby on puppy formula for up to 2 years, or as little as 7- 8 months.

Large/Giant Breeds may take as long as 18-24 months to reach their adult size

Small/Toy breeds may mature as quickly as 7 months.

Substantial slowing of growth and a healthy body condition score are the best indicators of when to switch to an adult maintenance formula.





TAKE AWAY POINTS: PUPPY NUTRITION 101

- ✓ Estimate adult body weight for determination of the recommended calcium range (>25 kg or 55 lbs adult weight, use large-/giant breed recommendation).
- ✓ Ensure the selected food has been approved for puppy growth by a credible regulatory agency (e.g., AAFCO/NRC/FEDIAF).
- ✓ Avoid free-choice feeding; use food-restricted meal feeding, dividing the amount fed into two to four daily feedings. (4 feedings for puppies under 8 months)
- ✓ Estimate the initial amount to feed from recommendations on product package. Remember, such recommendations should be used as guidelines or starting points and not as absolute requirements.
- ✓ Perform body condition scoring and monitor body condition at least every two weeks and adjust the amount fed by 10% increments to maintain a BCS of 2.5/5 to 3/5.
- ✓ Veterinarians should assess body condition and weight of puppies if any indication of under- or overnutrition is detected. The feeding plan, including food dosage, should be modified as necessary.
- ✓ Do not add any additional vitamin or mineral supplements to a complete and balanced food for puppies.
- ✓ Supplementation with fish-based Omega 3 fatty acids EPA and DHA is highly recommended.
- ✓ Training treats should be of similar formulation as the puppy food. They all count towards the total calorie consumption. Consider small bits of fruit or dehydrated or homecooked pure protein sources. Treats should not exceed 10% of daily calorie intake.
- ✓ Homemade diets (raw or cooked) should be professional formulated, raw or fresh food commercial products should be balanced specifically for puppies and indicated as such on the packaging.



THE KIBBLE
COACH

WHAT'S IN YOUR DOG'S FOOD?

LISA CLARKSON
CANINE NUTRITIONIST
BSC. CERT. ACN
CANINE DIET FORMULATION