

Diets for Each Life Stage

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YOU HAVE ASKED ...

What do clients need to know about proper nutrition for pets at each life stage?

THE EXPERT SAYS ...

The nutrient needs of dogs and cats change with age, so veterinarians should consult established guidelines and give clients clear direction in selecting the appropriate pet food at each life stage. The Association of American Feed Control Officials (AAFCO) guidelines, based on reviews of current evidence by the National Research Council, provide nutritional adequacy statements for all life stages (ie, from growth to full skeletal maturity).¹ There are no nutritional

guidelines for senior pets, and AAFCO does not separate animals beyond full skeletal maturity. The clinician should make dietary decisions based on each patient's needs.

Growth

Until they reach full skeletal maturity, puppies and kittens should be fed a complete and balanced food that meets the AAFCO nutritional adequacy statement for growth (see *AAFCO Statements on Pet Food Labels*, next page).¹ In cats and small- and medium-breed dogs, skeletal maturity is typically reached by 1 year of age; large- and giant-breed dogs may not reach skeletal maturity until 15 to 18 months of age. Diets are determined adequate for growth based on either formulation or feeding trial assessment. Diets formulated to meet nutritional

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adequacy are analyzed to ensure all essential nutrients are included and the diets comply with AAFCO minimum and/or maximum nutrient levels.¹ In contrast, feeding trials can be conducted to ensure nutritional adequacy. During these trials, pets undergo laboratory testing and physical examinations by experts to assess any potential concern.

AAFCO STATEMENTS ON PET FOOD LABELS¹⁰

AAFCO guidelines categorize pet food labeling as *growth, gestation/lactation, maintenance, or all life stages* (ie, food meeting the nutrient needs of any pet). Although AAFCO does not test or regulate pet foods (pet foods are regulated at the state level), they must meet AAFCO guidelines to be labeled as complete and balanced. This credentialing involves conducting feeding trials or analyzing foods and comparing nutrient profiles.

Accordingly, a version of one of the following statements will appear on the label:

- ▶ *Pet Food Name* is formulated to meet the nutritional levels established by the AAFCO Dog/Cat Food Nutrient Profiles for *growth/gestation/lactation/maintenance/all life stages*.
- ▶ Animal feeding tests using AAFCO procedures substantiate that *Pet Food Name* provides complete and balanced nutrition for *growth/gestation/lactation/maintenance/all life stages*.
- ▶ *Pet Food Name* is intended for intermittent or supplemental feeding only.

Starting in 2016, AAFCO guidelines require specific pet food label provisions for large- and giant-breed puppies (ie, those expected to mature to >70 lbs), which reduces the current maximum level of calcium in these diets.⁴ Manufacturers will have up to 2 years to comply with these new guidelines, which require foods formulated for growth or all life stages to specify whether they include or exclude growth of large-breed dogs with one of the following statements:

- ▶ *Pet Food Name* is formulated to meet the nutritional levels established by the AAFCO Dog Food Nutrient Profiles for growth/all life stages **including** growth of large-size dogs (70 lbs or more as an adult).
- ▶ *Pet Food Name* is formulated to meet the nutritional levels established by the AAFCO Dog Food Nutrient Profiles for growth/all life stages **except for** growth of large-size dogs (70 lbs or more as an adult).

Counseling owners to carefully read these statements can help ensure the critical difference between “except for” and “including” is not overlooked.

First Visit

At the first puppy or kitten visit, owners should be informed about the importance of BCS and breed predisposition to nutritional disorders (eg, lipid disorders in miniature schnauzers) in preventing or minimizing the severity of potential conditions. For example, monitoring BCS can prevent obesity, which can attenuate arthritis severity at a later stage. Specific evidence-based calorie and diet recommendations from established sources, including study guidelines from AAHA² and WSAVA,³ can provide a clear foundation to help minimize owner confusion.

A complete and balanced diet should prevent nutritional issues—such as obesity and nutrient imbalances—from developing.⁴ Owners should be advised that providing additional supplements is unnecessary. In addition, treats should be limited to <10% of the pet’s total daily caloric intake (eg, if a dog needs 1000 kcal per day, treats should contribute no more than 100 kcal).²

Spay/Neuter Visit

After the puppy or kitten has been spayed or neutered, its BCS should be reassessed. Caloric intake should be reduced ≈30% to account for lower energy needs after the procedure.⁵ If pets are already overweight or are diagnosed with other medical issues, a board-certified veterinary nutritionist should be consulted to ensure the diet is meeting the pet’s nutrient requirements and addressing medical conditions appropriately.

Special Considerations for Large- & Giant-Breed Dogs

AAFCO offers specific dietary provisions for large- and giant-breed puppies. These diets are required to have a lower maximum calcium allowance as compared with other growth diets. It is recommended but not required that they have more narrow calcium to phosphorus ratios (1-1.3:1 vs 1-2:1 in

growth diets).¹ Large- and giant-breed dogs are at highest risk for orthopedic conditions and thus should be fed a growth diet formulated specifically for large-breed puppies, without *any* additional supplements, until they reach full skeletal maturity.^{6,7} Studies have shown overfeeding can also increase risk for orthopedic developmental disease in large-breed puppies, so diets formulated for these puppies typically have decreased energy density and should be portion controlled to achieve a lean BCS of 4/9.

Adult Maintenance

After reaching full skeletal maturity (ie, adult life stage), cats and dogs can be fed a variety of diets that have AAFCO nutrient adequacy statements and follow the WSAVA guidelines to ensure high quality.³ Routine nutritional assessments, including diet history and BCS, should be completed at yearly visits to ensure appropriate nutritional management.² These assessments, in addition to regular wellness screenings, are critical to overall health monitoring and accommodate early detection of diseases that may change nutrient requirements.

Nutrient Requirements

Cats and dogs have different nutrient requirements; whereas cats should never be fed foods formulated for dogs, a dog's nutrient needs could be met by cat food.¹ In addition, puppies and kittens should not be fed adult foods until they reach full skeletal maturity. Adult dogs and cats can be fed all life-stage or growth diets but with caution, as certain diets may provide more nutrients than needed; this is especially true for large- or giant-breed dogs, for which maximum nutrient levels have not been separately established outside of growth diets.¹

Canned or Dry Diet?

There is a paucity of studies that determine

whether dry or canned foods are better for pet health. In healthy dogs and cats, patient preference can guide diet choice. In pets with certain medical conditions (eg, urinary disorders), high-moisture diets may be recommended, although this depends on the type of medical condition.

Alternative Diet?

It is unknown whether natural (as defined by AAFCO¹) diets provide more, less, or the same health benefits for pets as compared with nonnatural diets. However, there are known risks and medical consequences of feeding raw food, such as bacterial contamination and risks for both pets and humans in the household.⁸ Board-certified veterinary nutritionists can provide a complete and balanced recipe for owners who wish to home-cook meals for their pet. Of note, other than the term *natural*, no other pet food terminology (eg, organic, holistic, human grade) has been defined or accepted by AAFCO.

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Senior Pets

The term *senior diet* has not been defined by AAFCO and may be a misnomer, as the age at which a pet is recognized as *senior* differs by species and breed. Therefore, senior diets are extremely variable⁹ and formulated according to a company's individual nutrition philosophy, as there are no standard guidelines for senior pets. Furthermore, the optimal nutrient profile for pets as they age remains unknown.¹

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More frequent assessment as a pet reaches middle age and beyond should be based on breed lifespan, with appropriate wellness blood work performed at the clinician's discretion. Many pets may continue on adult food their entire life, whereas others may need adjustment based on nutrient needs as they age. Before approving a senior diet, veterinarians should properly assess a pet to determine whether the diet's nutrient profile is appropriate. This evaluation includes completing a nutritional assessment and taking into account any medical conditions (eg, renal disease, diabetes) that require nutritional modification.²

Conclusion

Cats and dogs have changing nutrient needs as they grow from weaning into adulthood and into their senior years. An appropriate diet can help ensure the best medical care for pets and avoid nutrient imbalances or diseases associated with malnutrition. A careful discussion of BCS, life stage, medical conditions, and AAFCO nutrient adequacy statements can better guide owners in selecting the appropriate diet for their pet, regardless of age. ■

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Suggested Reading

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