

Advancing Science for Pet Health

ΗΟΤ ΤΟΡΙΟ

Vegetarian diets for pets

In focus

Vegetarians may choose a meatfree diet for many reasons including concerns for health, animal welfare, and environmental sustainability.¹ For similar reasons, some pet owners may wonder if a vegetarian diet is an acceptable option for their pet.²

The Purina Institute provides the scientific facts to support your nutritional conversations.



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Are vegetarian diets appropriate for cats and dogs?

Complete and balanced diets, foods that provide all the essential nutrients a pet needs in the correct amounts and ratios relative to one another, can be formulated using ingredients derived from plant or animal tissues, or synthetically produced.



Complete and balanced vegetarian pet food can be made, but care must be taken to address the unique dietary requirements of dogs, and especially, of cats.

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Unique dietary requirements of cats

Cats are obligate carnivores and require specific nutrients found most abundantly in animal tissues and lacking in purely plant-based diets:³

Arachidonic acid

Cats lack sufficient activity of the pathway that converts linoleic acid to arachidonic acid.⁴

Taurine

Unlike dogs, cats cannot produce enough taurine from other amino acids to satisfy their needs.⁴

Vitamin A

Unlike dogs, cats lack sufficient levels of the enzyme that converts vitamin A precursors (e.g., betacarotene) to active vitamin A.⁴

Vitamin B3 (niacin)

Although dogs can derive some niacin from conversion of tryptophan, cats cannot. Both species benefit from a dietary source.⁴

These unique requirements lead to greater challenges in formulating a complete and balanced vegetarian diet for cats. To meet the unique needs of cats, a vegetarian diet must be supplemented with key nutrients not present in adequate quantities in vegetarian ingredients.



Research has found nutritionally deficient vegetarian diets for both cats and dogs.^{3,5-8}



To ensure that a vegetarian cat or dog food is complete and balanced, it is critical that it be formulated by a qualified nutritionist.

Is feeding a vegetarian diet indicated in some cases?

There is no scientific evidence that vegetarian diets provide added health benefits to healthy pets.^{2,9} However, dogs with the following conditions might benefit from eating a vegetarian diet:

- Confirmed allergy to multiple animal-source proteins that cannot be fed a hydrolyzed animal-source protein diet.
- History or risk of urate or cystine urolithiasis to reduce excretion of purines (urate precursors found in high amounts in organ tissues and fish) and methionine (a cystine precursor found in high levels in animal proteins).¹⁰
- Hepatic encephalopathy (HE) or risk of HE non-meat protein sources, such as soy or dairy, are better tolerated in patients with portosystemic shunts at risk for hepatic encephalopathy.¹¹

References

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