

HOT TOPIC

Soy in pet foods



In focus

Soy can provide nutritional advantages for pets, but pet owners often question the quality and health impacts of this ingredient.

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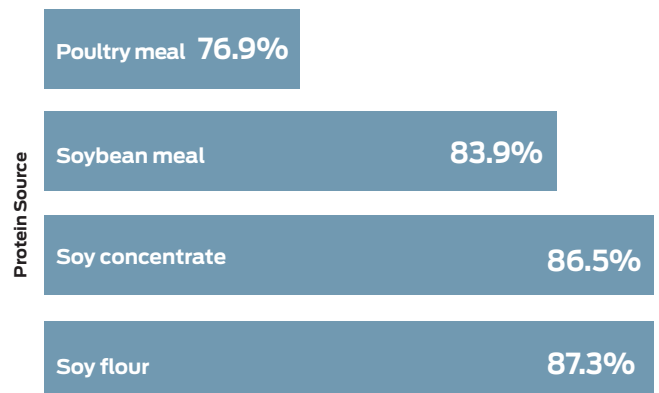
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Why is soy used in pet foods?

No single protein source can provide all the essential amino acids, in the correct balance, that pets need for synthesizing proteins. Soy protein is an excellent source for contributing essential amino acids to complete and balanced diets for dogs and cats.

A variety of protein ingredients made from soybeans — including soybean meal, soy flour and soy concentrates — are also highly digestible. Although study results may vary, digestibility of soy protein can rival or exceed that of meat-based protein sources.^{1,4}

% Protein digestibility



Adapted from Clapper et al., 2001

How does soy help pet health?

Soy contains isoflavones, which are natural antioxidants with proven health benefits for pets. Studies show that diets enriched with isoflavones have positive effects on weight management and metabolism, including:

- Reduced body fat accumulation and 50% less weight gain in dogs fed 25% above maintenance energy compared to dogs fed similar amount of a soy-free diet.^{5,7}
- Significantly increased energy metabolism in neutered male dogs.⁷
- Help reduce oxidative stress, which may help lower the risk of arthritis and diabetes in overweight dogs.⁷
- Maintain healthy body weight in cats.⁸
- Improved insulin clearance in overweight dogs (reduced insulin clearance and high blood levels of insulin are associated with chronic disease in dogs and people).^{9,10}

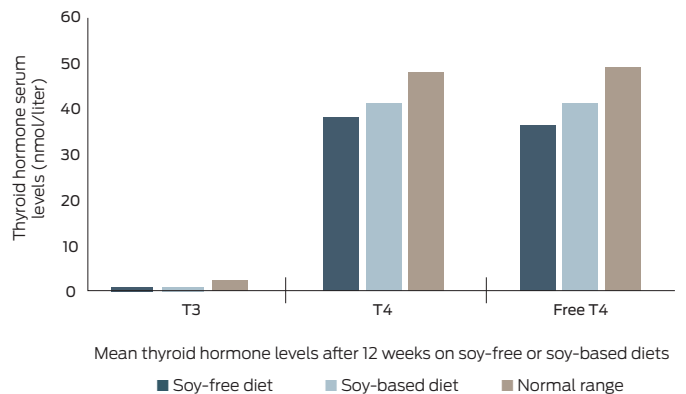
Hydrolyzed soy protein also helps manage food allergies in dogs and cats—the smaller size and altered structure reduces the likelihood of triggering an adverse immune reaction.^{11,12}

Are isoflavones safe for my pet?

The many health benefits of isoflavones come from their estrogen-like structure. However, the effects of isoflavones vary by species, and individual, based on the metabolism and bioavailability of active forms of isoflavones.¹³⁻¹⁷ Dogs and cats do not always process isoflavones in the same way as people or other species. In domestic cats and dogs research shows:

- When two studies measured elevated concentrations of isoflavones in commercial pet foods containing soy, the authors assumed these amounts would cause “biological effects” in pets. The studies never detected – or tested for – any such effects.^{18,19}
- Year-long studies in dogs and cats fed high daily amounts of soy reported no adverse clinical effects unless the levels were exceedingly high (at about 100-500 mg/kg/day).^{8, 20-22}
- In cats fed soy-based diets for 3 months—with 33% more isoflavones than the highest amounts reported in commercial diets—the serum levels of thyroid hormones stayed within normal laboratory reference ranges, and no abnormal clinical signs of excess thyroid hormone were reported.^{19,23}

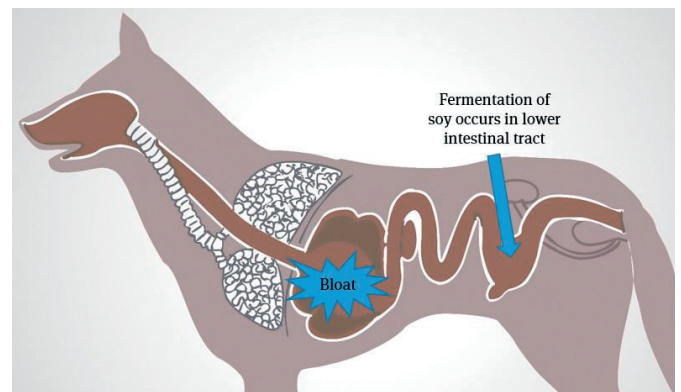
Cats on soy-based diets maintained mean thyroid hormone levels within the normal reference range



Can soy cause bloat in dogs?

Soybeans contain a small percentage of dietary fiber which undergoes bacterial digestion in the large intestine; in some animals this process can lead to flatulence. Such side effects have led to the misperception that soy fermentation could cause gastric dilatation volvulus (GDV), or stomach bloat, in dogs. However, fiber fermentation occurs in the large intestine – well past the stomach.

Several studies have confirmed that the air trapped in the stomach of dogs with bloat is not derived from fermented soy or other foods.²⁴⁻²⁶



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