

# Vitamin Supplements

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Vitamins were discovered in 1910, however, the diseases caused by various vitamin deficiencies were known long before then. We now know rickets is caused by a Vitamin D deficiency and night blindness is due to a Vitamin A deficiency. Vitamins are essential to life, and with few exceptions can not be made by an animal's body, but must be supplemented in the diet.

## Function of vitamins

Vitamins are necessary for literally tens of thousands of different chemical reactions in the body. They often work in conjunction with minerals and enzymes to assure normal digestion, reproduction, muscle and bone growth and function, healthy skin and hair, clotting of blood, and the use of fats, proteins, and carbohydrates by the body.

## Classes of vitamins

Vitamins are generally classified into two groups based on how or if they are stored in the body. Fat-soluble vitamins are stored in the liver and fatty tissue. Water-soluble vitamins, on the other hand, are stored in only very small amounts by the body. They need to be taken in daily, and any excesses are excreted by the body each day.

### Fat-soluble vitamins include:

Vitamin A  
Vitamin D  
Vitamin E  
Vitamin K

### Water-soluble vitamins include:

Vitamin C  
Vitamin B1 (thiamin)  
Vitamin B2 (riboflavin)  
Vitamin B3 (niacin)  
Vitamin B5 (pantothenic acid)  
Vitamin B6 (pyridoxine)  
Vitamin B12 (cyanocobalamin) and Folic Acid  
Biotin

## Vitamin supplements

There is always some controversy regarding vitamin supplementation. Many people feel supplements are very necessary. They feel that even when feeding a high quality food, some of the vitamins may have been destroyed by the processing or storage. Pet owners feeding a homemade diet or a diet high in table scraps should give their pet a high quality vitamin/mineral supplement. Ill or recovering pets who may have a poor appetite should also be given a good vitamin/mineral supplement since they are not receiving their daily requirements through the food they eat.

The possibility of vitamin toxicity with the fat-soluble vitamins, especially Vitamin A and D, which are stored in the body, is of concern to some researchers and veterinarians. In reality, the amount of Vitamin A and D needed to develop a toxicity is many times higher than what is contained in a high-quality balanced vitamin/mineral supplement. Toxicities do not occur when you give your pet the recommended amount of high-quality, commercially prepared vitamin/mineral supplements. This is not to say over-supplementation can not occur. Supplements must be chosen with care and large numbers of different supplements should not be used together unless prescribed by a veterinarian.

Not every animal needs the same supplement. A puppy, a pregnant animal, an ill animal, or a 'senior' pet all have different nutritional needs and supplements should be chosen accordingly.

If you have any questions about choosing the right supplement(s) for your pet(s), talk to your veterinarian or a qualified pet nutritionist.