

VITAMINS AND MINERALS IN CAT FOODS

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Normal intestinal bacteria of cats produce vitamin K, which is also present in high amounts in soybean meal and liver — common components of cat diets — so there is no requirement for this vitamin. Thiamine is definitely required, the recommended level being 0.4 mg/100 Gm of diet. Deficiency signs are vomiting, anorexia, cardiac disturbances, and convulsions. Thiamine can be inactivated by bisulfite salts used as preservatives, and by enzyme thiaminase found in some legumes and fish. As little as 10% raw fish in the diet, such as herring, whiting, mackerel, and clams, can cause acute thiamine deficiency. About 50% of all fresh water fish contain the enzyme, which is inactivated by cooking the fish. Riboflavin deficiency can result in anorexia and starvation, or cataracts in chronic cases. The diet should contain 0.4 mg/100 Gm.

Niacin deficiency causes the typical ulcerated and oral-tongue lesions of pellegra, but rarely is a single entity in cats. Cats cannot form niacin from tryptophane and a level of 4.0 mg/100 Gm is recommended. Lack of pyridoxine causes deficient growth, weakness, convulsions and anemia, with kidney and liver involvement. Minimum requirement is 0.2 mg/100 Gm of diet. Pantothenic acid deficiency causes neuroses, impaired adrenal function, and fatty liver. Minimal recommendations are 0.5 mg/100 Gm, usually added in the form of calcium pantothenate. Biotin deficiency is rare but can be induced by feeding raw egg white which interferes with its absorption. Recommended levels are 0.02 mg/100 Gm. Folic acid, vitamin B 12 and ascorbic acid supplements are not required.