

## OBSERVATIONS ON FELINE NUTRITION

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Few detailed studies on feline nutrition have been made, and lack of knowledge on the subject is a handicap in treating some diseases of cats. The following observations—some of them more or less empirical—have been gathered from a variety of sources. Cats are more carnivorous than dogs, and kittens require about 70% more protein than puppies the same age, while laboratory cats on purified diets have required 30% more protein than dogs for proper growth and development. Uncastrated males have enormous appetites. Many cats refuse to eat canned dog or cat foods because of the sticky consistency. With some dog foods cats ate well, although they lost a little weight but in 45-60 days developed posterior paralysis or loss of equilibrium and died. On one commercial cat food cats lost weight, refused food, developed tetanic spasms or lost equilibrium, and died or were destroyed. Cats have developed irreversible nervous symptoms when fed exclusively on canned foods consisting primarily of whole or filleted fish, perhaps due to thiamin deficiency. Fish-base foods have also been incriminated in the formation of urinary calculi. Although it was formerly thought that cats require some raw meat in their diet, canned foods have proved entirely adequate when properly formulated and processed.

Cats like more variety of diet than most dogs and if fed the same food continuously may develop anorexia. Milk is nutritious but many adult cats — especially Siamese — do not like it, although they may be forced to drink it if inadequate water is supplied. All cats should have fresh water available regularly, and an adequate water intake is especially beneficial for cats with urinary calculi. A diet can be prepared from cooked beef or horsemeat with cooked vegetables, vitamins A and E and brewers' yeast; if necessary on economic grounds this may

be supplement with dog meal or kibbles, but this makes the ration too high in ash, fiber and minerals. Dry cereal would be a better choice for "padding" the ration. Dividing the daily ration into 2 meals keeps cats happier than if only one meal a day is given, and this eliminates the fairly common problem of vomiting after eating because the stomach is too full. A supply of baby foods (beef, veal, liver) is useful in a veterinary hospital; fussy eaters or frightened patients rarely refuse these, and for extended stays most clients will gladly absorb the additional cost. Supplemented with brewers' yeast, they make an ideal (though expensive) food. In some practices it might be feasible to stock a "gourmet shelf" with canned crabmeat, sardines, smoked oysters, etc., for finicky or frightened cats that must be tempted into eating. Mild constipation can be corrected by adding 1 tsp strained baby food with vegetables to one meal per day. Strained baby food meats, mixed with water or milk, have good consistency for stomach tube feeding. Although—unlike dogs—most cats do not like sweets, some have peculiar tastes, as for sauerkraut, popcorn, ice cream, corn on the cob, etc. Most of them like cheese—some mild varieties, others Swiss, etc.—but limburger is invariably "covered up" as a positive sign of dislike.

Cats require more vitamin A than do dogs, deficiencies being associated with urinary tract problems. Although the vitamin D requirement for cats has not been established, the level is probably similar to that for dogs, and rickets has been reported in kittens. Vitamin C is synthesized but—unlike other animals—cats need a dietary source of niacin. Rations for kittens should be supplemented with vitamins A and D, especially in winter. Fat requirements are high, but ash, fiber and mineral content of rations should be low—lower than in many prepared foods—since cats cannot digest ash and fiber as well as dogs do. Studies on mineral requirements are not adequate for making recommendations except, perhaps, that excesses should be avoided; bone meal should not be used to supplement cat rations. Cats have been fed rations with up to 30% ash for a year in an unsuccessful attempt to produce urinary calculi, but ash from fish skeleton is known to be eliminated largely as crystals in the urine.