

THE NECESSITY OF AMINO ACIDS IN THE DIET OF CATS WITH OBESITY

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Obesity is a medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health. The daily ration of an adult cat must contain 40-45% of proteins, 20-25% of fats, 25-30% of carbohydrates. Low- fat diets are recommended to cats with overweigh.

Necessary amino acids in the diet of cats with excess weight. Taurine is a sulfonic acid, which synthesizes in the body of animals and humans from the amino acid of cysteine. It plays an essential role in the digestion and assimilation of fats and lipids. The need for cats in taurine is due to their limited ability to synthesize taurine from amino acids that contain gray, as well as the fact that it holds bile acids. The latter is very important because cats do not produce bile acid salts associated with glycine, even in the case of taurine deficiency.

Taurine has many fundamental biological roles, such as conjugation of bile acids, antioxidation, osmoregulation, membrane stabilization, and modulation of calcium signaling. It is essential for cardiovascular function, and development and function of skeletal muscle, the retina, and the central nervous system.

The deficiency of taurine leads to degeneration of the retina and blindness, deafness, cardiomyopathy, disorders in the functioning of the immune and reproductive systems, suppression of neonatal growth, and the occurrence of birth defects.

The recommended amount for a cat per day is 100-200 mg.

L-Tryptophan is an α -amino acid that is used in the biosynthesis of proteins. Together with vitamin B6, magnesium and niacin, tryptophan is responsible for the serotonin production in the brain (a mediator that regulates the activity of nerve cells and transmits signals

between them). Also, tryptophan is involved in the production of hemoglobin and affects the reproductive function of animals.

The recommended amount for a cat per day is 0.3 g / 1000 kcal of energy value (EV).

DL-methionine is a synthetic analog of natural methionine.

Methionine is an essential amino acid for animals. As the substrate for other amino acids such as cysteine and taurine, and the important antioxidant glutathione, methionine plays a critical role in the metabolism and health of many species, including humans. Methionine is a source of sulfur that forms the keratin protein. Keratin is simply necessary for the health of the hair, skin, and claws of the animal.

The recommended amount for a cat per day (methionine + cystine) is 1.5 g / 1000 kcal EV.

Conclusion: Nowadays the problem of overweight in small domestic animals, in particular in cats and dogs, is becoming more widespread. In order to prevent the spread of obesity, therapeutic rations should be balanced by all indicators, such as proteins, fats, carbohydrates, amino acids, minerals, and vitamins.

Prospects for research: for the study of rations and their effects on the body of a diseased animal, we can determine the optimal concentrations of nutrients in feeds and to determine their effects with excess or shortage. We will also be able to establish contraindications to the consumption of a particular diet.