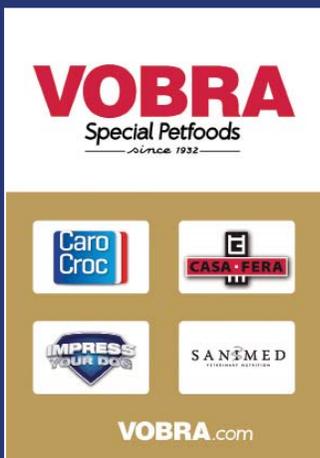




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Foods for Neutered Cats

As a very rough indication, in westernised countries around 80 percent of the pet cats is neutered, 60 percent has free access to food and 30 percent is overweight. De-sexing of cats contributes to prevention of overpopulation. It also reduces behaviour that may be an annoyance to owners. Spaying eliminates the queen's heat-associated behaviour and castrating diminishes the tomcat's territorial aggression and urine spraying. The negative side to neutering is that it markedly enhances the likelihood of overweight which is a risk factor for diabetes and lameness.

The marketplace offers complete foods with neutered or an equivalent term as (part of) the product name. Other feline foods may highlight neutered animals as target group. Foods for neutered cats purport to help fighting obesity. The claim is generally reasserted by low contents of fat and energy. Some foods contain added L-carnitine as body-fat burning agent, but there is no evidence that the supplement curbs obesity development. Foods for neutered cats may affirm to promote urinary-tract health, but this claim is not particularly specific.

Neutering stimulates appetite in cats. When food is available at all times, neutered cats show increased food intake, leading to expansion of body fat. The feeding of a fat-rich diet causes further fattening of neutered cats. This suggests that foods for neutered cats should be relatively low in fat. For preventing obesity, however, food restriction is more effective than the type of food. Owners should make adjustments in food supply so as to optimise body weight of their cats post-neutering.

Neutering and Health

Epidemiological studies document that for both female and male cats neutering is a quantitatively important and consistent risk factor for obesity development.

Obesity prevalence figures depend on cat population and definition of obesity, but for westernised countries an average of 30 percent is realistic. As an approximate estimate, neutered cats have a threefold greater risk of obesity than their intact counterparts.

Feline obesity is a risk factor for type II diabetes mellitus and lameness. It could even be a causative factor. Weight loss in obese cats normalises insulin sensitivity, pointing to cure of type II diabetes. During weight reduction of cats, owners often observe an increase in activity, possibly illustrating amelioration of osteoarthritis.

Neutering and Appetite

Neutered cats undergo biochemical changes that predispose to weight gain. Upon desexing, cats display greater appetite. When allowed free choice food access, the intake of food energy increases within days of neutering in male cats. Post-neutering weight gain may be



associated with less energy expenditure due to inactivity and perhaps low basal metabolism. All changes promote a state in which the intake of energy with food exceeds expenditure.

For one year following ovariectomy, adult cats were fed ad libitum on dry or canned commercial foods. The cats showed a group-mean increase in body weight of about 30 percent, but inter-individual variation was substantial.

Spayed female cats were also fed to maintain their pre-neutered body weight. The supply of dry food was adjusted to interim body-weight measurements. Administration of food was equivalent to 40, 50 or 60 kcal (167, 209 or 251 kJ) per kg body weight per day. With this controlled feeding regimen body weights of most cats were maintained within 10 percent of their pre-neutering values.

Commercial Foods

For 10 dry cat foods with the word neutered or likewise as (part of) the product name, the percentage of energy provided by fat has been calculated. All foods are recommended for adult cats. Four foods are named either sterilised or neutered and two foods have castrate as tag.

The average fat content of the 10 foods is 28 energy percent, the lowest and highest values being 24 and 36 energy percent. For comparison, regular dry cat foods may contain 40 energy percent fat, which is equivalent to 16.2 weight percent in a dry food (1500 kJ/100 g). Eight out of the 10 foods for neutered cats contain less than 30 energy percent fat, but none is below 20 energy percent.

High versus Low Fat

In a controlled study, sexually intact and



neutered male and female cats were fed ad libitum on dry foods containing either 25 or 41 energy percent fat. The high-fat diet contained more fat and less carbohydrates in isoenergetic exchange. In each group of cats, the high-fat versus low-fat diet induced greater group-mean percentage increases in body weight and fat mass. After 26 weeks, the highest body weights within gender groups were seen in the neutered animals fed the high-fat diet.

Neutered cats have desire for food. Diets with about 40 energy percent fat are both relatively rich in energy and palatable. Around 40 energy percent fat is preferred in two-choice tests, is selected from varying macronutrient combinations and is present in the diet of free-roaming feral cats. Diets with lower fat content may induce less severe obesity, but in order to achieve and maintain ideal body weight, the provided amount of food energy is crucial.

Dr Anton C Beynen writes this exclusive column on dog and cat nutrition every month. He is affiliated with Vobra Special Petfoods.