

## Nutritional needs for animals at different stages

### Age

Older animals will need less food than younger animals. Animals that are younger will need to eat more frequently throughout the day. Changes that occur with age include slowing down in activity levels and the alteration in the physiology of the digestive tract, immune system, kidneys and other organs. Generally, the capacity to absorb and use nutrients is not decreased in older animals, but the body does become less able to tolerate excesses. The ability to respond to dietary changes may also be decreased. A decrease in kidney function also leads to an increased loss of water-soluble vitamins, due to the kidneys' decreased ability to concentrate the urine. This can also lead to a reduction in hydration levels of the animal. Senior animals have a reduced sensitivity to thirst, and are at greater risk of dehydration.



### Weight/size

A larger animal will need to eat and drink more than a smaller animal. Many commercial diets are targeted for specific breed types or size. Small-breed diets tend to have a higher energy density compared to those aimed at medium and large breeds. This is due to the stomach's small capacity and an increase in metabolism. Care should be taken with any small-breed as they can be overfed and put on weight easily.

### Breed

Certain breeds have certain characteristics – long-haired cat breeds are more likely to need a diet with a hairball element, for example, while Labradors are more likely to require a diet that has some element of mobility aid and is lower in calories.

Each animal must be considered as an individual when discussing and recommending a specific diet. The animal's BCS, MCS and dietary history need to be evaluated to ensure an accurate recommendation.

### Activity Level

Animals with a high energy expenditure will benefit from a diet with a higher energy density. The digestive system's capacity and digestive and absorption abilities may be limiting factors. Care should be taken when an animal has periods of reduced activity as excessive calories will result in rapid weight gain. Energy-dense diets are also beneficial for animals with a high metabolism that find weight gain difficult. When changing any animal to a more energy-dense diet, a longer than normal transitional period may be required. This is due to the dog's digestive mechanisms having to adjust to this diet. The extra energy in these diets is supplied in the form of increased fat content, while they have a relative decrease in fibre content. This increase in fat is due to the increased calories per unit of weight the fat contains. The reduction of fibre is required as this increases the digestibility of the diet, and reduces the effect fibre has on reducing absorption of other nutrients.

### Life stage

Junior and adolescent - There are many commercial foods available that are aimed at this life stage. This is because they require specific vitamins and minerals to develop healthy growth and to ensure that they do not become obese in adult life. At this stage they will need to be fed smaller meals, more often. The adult phase is defined from when maturity has been reached. The age the adult phase starts depends chiefly on breed variations. Smaller breeds can reach full maturity from six months; larger and giant breeds from between one year to 18 months. Each animal should have its diet altered to meet its individual needs. The quantity of diet fed will depend on the quality of the diet, amount of exercise the animal receives, neutering status and metabolism. Those breeds predisposed to weight gain should have their weight, body condition score (BCS) and muscle condition score (MCS) monitored throughout this life phase. Changes in post-neutering metabolism should be noted to owners, and use of "light" diets or diets specifically aimed at neutered animals should be advocated. These diets are designed to prevent weight gain, not aid in weight loss.

## **Nutritional needs for animals at different stages**

### **Knowledge Questions**

1. Do older animals generally need less or more food than younger animals?
2. What changes occur with older animals?
3. What do senior animals have a reduced sensitivity to?
4. What are senior animals at greater risk of?
5. What do smaller breeds foods tend to have?
6. Why should care be taken when feeding smaller breeds?
7. What sort of diet would be a good choice for a Labrador?
8. What will animals with a high energy expenditure benefit from having?
9. What do excessive calories result in?
10. Why do junior and adolescent animals require specific vitamins and minerals?
11. How is the adult phase of an animal defined?
12. How should an animals diet be altered?
13. What is a BSC?
14. What is a MCS?