#### **OBESITY**

As with other species of pets, obesity is a serious condition which is becoming more common in the pet rabbit. This may be because the rabbit itself is now the third most popular pet in the UK, or because we have busier lifestyles now and do not have time to give them the proper care they deserve.

Obesity can occur through lack of exercise and/or an unsuitable diet. Rabbits should be fed on a high fibre, low carbohydrate, low protein diet. Many rabbits get little or no hay with too much cereal foods, fruit, crackers and crisps.

An obese rabbit may suffer from arthritis, heart disease, sore hocks, urine scald, skin and coat problems and even flystrike because it is unable to groom itself or ingest caecotrophs.

In obesity cases the vet may suggest weaning off the dried food altogether. A hay and veggie diet should help keep rabbits lean and healthy. Fruit leaves and herbs can be used as treats instead of items like crackers and fruit.

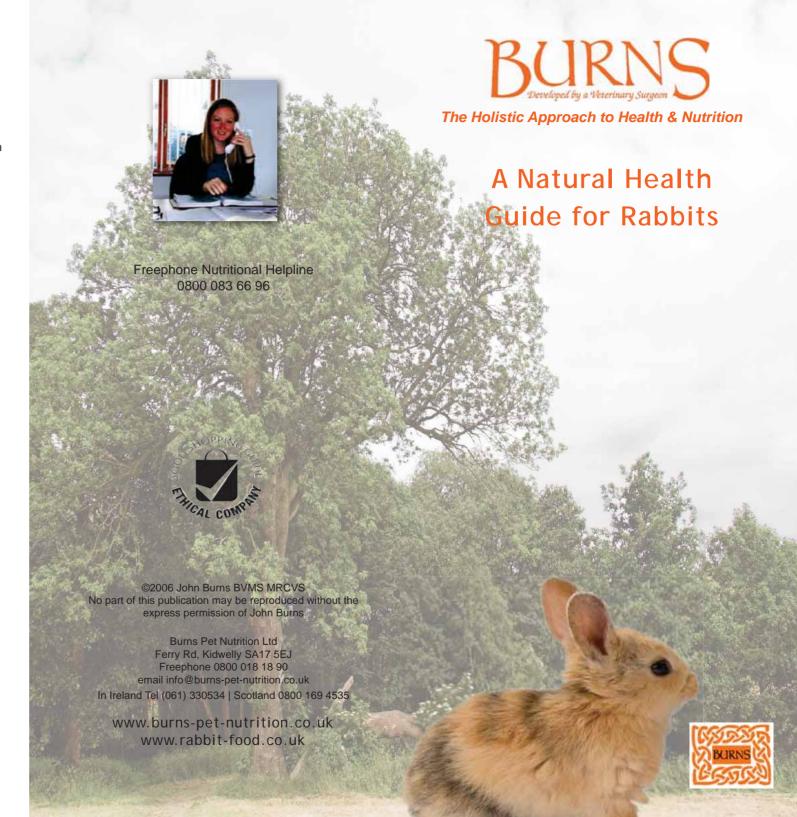
# **FLY STRIKE**

This is when flies lay their eggs in the faeces covered fur around the anus of the rabbit. The eggs can hatch quickly and the maggots eat the rabbit's flesh.

Warm moist conditions encourage flies; you should avoid soaking the rabbit and clean the faeces away carefully. You can prevent fly strike by giving your rabbit a high fibre diet to prevent obesity and 'sticky bottom'.

More information on caring for a rabbit can be found on www.houserabbit.co.uk.





### NORMAL PHYSIOLOGY OF THE RABBIT

Unlike dogs which have adapted markedly from their counterparts in the wild, pet rabbits have the same physiology as wild rabbits. Rabbits are designed to eat grass as their main source of food. Grass has a low nutritional value and is high in fibre which means that rabbits must spend a long time each day grazing in order to meet their needs.

In the wild, the rabbit will spend several hours grazing, especially at dawn and dusk. Herbs, fruits and berries will form only a small part of the rabbit's food intake.

The digestive system of the rabbit is geared to utilize grass effectively and this is reflected in a number of important characteristics.

Firstly, the teeth of the rabbit grow continuously throughout life. This is necessary because the teeth are constantly worn down by grinding tough, fibrous material. The upper and lower teeth wear against each other.

Secondly, while proteins, fats and sugars are absorbed in the small intestine, fibre is fermented by bacteria in the large intestine situated at the lower end of the digestive system. This process produces vitamins, essential fatty acids and amino acids which the rabbit needs.

Unlike other species of animal, the rabbit produces two types of faeces. These are the hard, dry pellets we are all familiar with and <u>caecotrophs</u>. These are soft, mucous-covered pellets which the rabbit eats as soon as they are passed.

This sounds repulsive but this is how the rabbit obtains the essential nutrients which are produced in the large intestine. Most owners are unaware of this as the caecotrophs are usually passed and eaten at night. (The very young rabbit eats caecotrophs produced by its mother but starts to produce its own at about 3 weeks of age.)

#### FEEDING THE PET RABBIT

Ideally, the diet of the pet rabbit should mimic that of the wild rabbit i.e. based on grass or hay which should always be available. This should be supplemented by vegetables, wild plants and herbs.

Most commercial, cereal-based rabbit foods are unsuitable in that they are high in nutrients, low in fibre

and non-abrasive. This means that the rabbit can satisfy its needs in a short time with little chewing. The result is that the teeth are not worn down as required. (See Dental Disease)

Commercial, cereal based foods should be fed sparingly. They may be a useful part of the diet of the growing rabbit or for rabbits kept outdoors in winter as they need more energy to keep warm.

Any changes to the diet should be done gradually to avoid the danger of digestive upset. If your rabbit stops eating, veterinary attention should be sought.

## **GENERAL ADVICE**

Rabbits are social animals so it is not ideal to keep a rabbit on its own, especially if left unattended for long periods. If possible, have more than one rabbit.

Rabbits are often bought for children who quickly lose interest, and a rabbit which lives alone in a small hutch at the bottom of a garden with minimal human contact is not a pet - it is a prisoner.

Most rabbit runs on the market are too small. You should buy the biggest hutch possible and ensure that the rabbit gets out of its hutch every day for exercise either in a run on the grass, or if it is an indoor rabbit it should be exercised around the house (under supervision!)

Rabbits can be housetrained and live as part of the family.

#### **DENTAL DISEASE**

Although the mouth is part of the digestive system, it is considered separately here because of the huge importance of dental health to the well-being of the rabbit.

Tooth problems are the commonest reason for seeking veterinary attention for rabbits. Dental disease is often the underlying cause of other disorders of the rabbit e.g. digestive system, malnutrition, skin disease, fly strike, social disharmony (aggression).

Apart from a few exceptions (genetic malformation in certain breeds, trauma) dental problems are due to feeding unsuitable commercial diets which, as mentioned above do not promote proper wear of the teeth.

If the teeth are not worn down by chewing, the cheek teeth grow too long and are forced together. At this stage the only external sign may be weight loss as the rabbit has difficulty eating. Further growth forces the mouth open slightly so that the front incisors do not meet properly and they start to overgrow and lengthen. The upper incisors curl back into the mouth and the lower incisors protrude outwards. This is usually the stage at which a problem is noticed but there is already considerable damage by this time.

Because the rabbit cannot chew properly, the cheek teeth wear unevenly and form sharp points which cut the cheek and tongue. This is painful, the rabbit is reluctant to eat and may dribble. As the condition progresses, the jaw may become lumpy as the jaw bone erodes. This is very painful and may lead to infection of the tooth roots and abscesses on the face and head.

Other signs of dental disease are persistent runny or infected eyes. This is because the tear ducts will be affected by abnormalities of the roots of the incisor teeth. Dental problems may also affect the rabbit's ability to eat their caecotrophs which then stick to the rabbit's bottom and attract flies. Failure to eat caecotrophs may also lead to nutritional deficiencies.

#### **DIGESTIVE SYSTEM**

As described earlier, the digestive system of the rabbit is evolved to eat large amounts of grass with a high fibre content. Fibre is fermented by bacteria in the large bowel to produce caecotrophs which are expelled and then eaten to provide vitamins and other essential nutrients.

If the rabbit's diet consists of a high percentage of cereal-based pellets containing easily digested carbohydrate rather than grass or hay which is high in fibre, an excessive number of caecotrophs will be produced. These stick to the bottom and may look like diarrhoea. This is known as "sticky bottom".

This can be distinguished from true diarrhoea in that the rabbit will also produce normal, hard faeces as well. If true diarrhoea is present, both types of faeces will be watery. True diarrhoea needs immediate veterinary attention.

Sticky bottom can also be caused by dental disorder, obesity and back problems, all of which impair the rabbit's ability to eat its caecotrophs.