

## BASIC INFORMATION

### Description

Obesity is defined as body weight in excess of 15% above normal resulting from an accumulation of fat. It occurs in 25-50% of dogs in the United States. Associated health risks include musculoskeletal and cardiovascular diseases, hypertension (high blood pressure), hyperlipidemia (excessive levels of fat in the bloodstream), higher incidences of bladder and mammary (breast) cancer, possible anesthetic and surgical complications, decreased heat tolerance and stamina, and reproductive problems.

### Causes

Obesity occurs when energy intake exceeds energy expenditure and other risk factors are present. Certain breeds, such as the Labrador retriever, cairn terrier, American cocker spaniel, dachshund, basset hound, and beagle, as well as females and middle-aged animals, have an increased incidence of obesity. Neutering increases the risk of obesity. Dietary factors also play a role. Feeding calorically dense, highly palatable, high-fat diets and free-choice feeding increase the risk. Hypothyroidism (low thyroid levels) and hyperadrenocorticism (high blood cortisone levels) are also associated with obesity.

### Clinical Signs

Dogs that are obese have excessive fat accumulation around the neck, over the tail-head, along the underside, and in the abdominal cavity. Obesity may be associated with difficulty moving or breathing, exercise intolerance, urinary or fecal incontinence, unkempt appearance, and pressure sores.

### Diagnostic Tests

Dogs are usually tested for hypothyroidism and hyperadrenocorticism. Other tests may be recommended to assess for obesity-related diseases in other organs and to search for any underlying risk factors.

## TREATMENT AND FOLLOW-UP

### Treatment Options

If obesity is associated with hypothyroidism or hyperadrenocorticism, treatment is started for these conditions. Weight reduction programs involve a multistep approach that includes good owner commitment, a feeding plan, and an exercise plan. In order for the animal to lose weight, it is necessary for energy expenditure to be greater than energy intake. This is accomplished by increasing

exercise (increased energy expenditure) and by feeding a diet that is lower in fat and higher in fiber (lower energy intake) than typical adult dog foods.

Nutrients in diets formulated for weight loss in dogs are designed to decrease energy intake so that weight loss occurs without inducing other nutrient deficiencies. In order to achieve weight loss, a diet is fed that meets resting energy requirements of the dog at its ideal weight. Weight loss is better achieved with the feeding of meals rather than free-choice feeding. It is also important to limit treats and not to allow access to other pets' food or human food.

An approved medication, dirlotapide (*Slentrol*), is available to facilitate weight loss in dogs. It induces weight loss by decreasing appetite. In clinical studies, it was found to be effective and safe, although some dogs may vomit when the drug is initially started. Dosages of dirlotapide are adjusted so that an average of 1% weight loss occurs per week until the desired target weight is reached. Once the target weight is reached, diet and exercise are adjusted and dirlotapide is continued until the target body weight remains stable. When the weight maintenance phase has been reached, dirlotapide is discontinued, and the dog is placed on a maintenance dietary and exercise regimen.

### Follow-up Care

Body weight is monitored every 2 weeks, and the diet, exercise, and dirlotapide (if used) are adjusted to cause a 1-2% loss of weight per week. Many dogs lose weight in a stairstep fashion. They lose quite a bit over a 2-week period and then do not lose much over the next 2 weeks. Alterations in diet and dirlotapide are not usually done unless weight has not changed at two sequential examinations.

After the desired target weight is reached, body weight is monitored monthly to ensure that weight is maintained. The maintenance diet is usually an adult diet designed to help maintain the lower weight. This diet is typically higher in fiber and lower in fat than average over-the-counter adult diets, but it is not intended for weight loss. Certain diets labeled as *light* may be used, but they are not as effective. Treats, snacks, and table scraps should comprise less than 5% of the total caloric intake.

### Prognosis

Weight loss is difficult to achieve in some dogs and requires prolonged dedication and dietary restrictions. Prevention of obesity in growing and adult animals is very important and is often easier to achieve than weight reduction.