

# Legg-Calve-Perthes (LCP)

## Description

Legg-Calve-Perthes Disease (LCP) is a disorder of hip joint conformation occurring in both humans and dogs. In dogs, it is most often seen in the miniature and toy breeds between the ages of 4 months to a year.

LCP results when the blood supply to the femoral head is interrupted resulting in avascular necrosis, or the death of the bone cells. Followed by a period of revascularization, the femoral head is subject to remodeling and/or collapse creating an irregular fit in the acetabulum, or socket. This process of bone cells dying and fracturing followed by new bone growth and remodeling of the femoral head and neck, can lead to stiffness and pain.

## Symptoms

The animal is usually presented with a limp. Physical examination shows some pain on extension of the hip joint, particularly with internal rotation. The dog will also evidence pain on forced abduction of the hip joint. Advanced signs include muscle contracture and/or apparent shortening of the leg on the affected side associated with collapse of the femoral head

In mild cases, the dog may occasionally resist bearing weight on the affected leg or may exhibit periodic lameness. In these cases, limited activity and treatment with non-steroidal anti-inflammatory drugs (NSAIDs) may be sufficient.

In more severe cases as the pain and discomfort experienced increase, the dog may become totally lame and avoid all use of the affected leg. Furthermore, the leg muscles may begin to atrophy after extended periods of non-use. In severe cases, treatment often resorts to excision of the femoral head and neck. By removing the femoral head and neck, the bone on bone contact that is the source of the pain and discomfort is eliminated. Later, through the healing process and with therapy, a new false joint is formed by muscle and tissue, and the dog may have a complete recovery. Total hip replacement is another treatment option for severe cases now that micro hip replacements have become available.

## Treatment

The degree of clinical severity of LCP varies, and treatment can vary accordingly.

Therapy may range from resting of the limb without casts or bandages to surgery.

Strict adherence to complete rest yields a dog with nearly normal radiographic appearance and complete return of pain-free motion and a normal gait. It takes 4 to 6 months before the femoral head heals sufficiently to permit unrestricted weight bearing. Any compromise to complete immobilization will result in the collapse of the femoral head and a poor outcome.

An animal with collapse of the femoral is a candidate surgery. If left untreated, the animal will undergo extensive muscle atrophy followed by significant disability before there is some partial improvement. This animal will develop osteoarthritis and may become severely crippled.

Following surgery, exercise will help return the animal to reasonable function. Gradual improvement following resection of the femoral head and neck can continue for up to one year. The primary function of the surgery is the relief of pain, but the small size of these patients usually ensures adequate function.

## Test method

Dogs must be a minimum of 12 months in age to have a certified LCP evaluation by OFA. Sedation may or may not be used by the veterinarian in order to obtain radiographs of the hip joint for submission to the OFA.

OFA application for LCP:

[http://www.offa.org/pdf/lcpapp\\_bw.pdf](http://www.offa.org/pdf/lcpapp_bw.pdf)

### **Genetic/breeder information**

LCP is believed to be an inherited disease, although the mode of inheritance is not known. Because there is a genetic component, it is recommended that dogs affected with LCP not be used in breeding programs

### **Stats within CdT breed**

Breeds listed as “at risk for Legg-Calve-Perthes” with the OFA do not include CdT. The OFA records show that 29 Cotons have been evaluated for LCP and 100% were normal.

### **Source of data**

[www.offa.org](http://www.offa.org)

[http://en.wikipedia.org/wiki/Legg-Calv%C3%A9-Perthes\\_syndrome](http://en.wikipedia.org/wiki/Legg-Calv%C3%A9-Perthes_syndrome)