



## **Hip Dysplasia**

### **What is hip dysplasia?**

Hip dysplasia is a genetic disorder caused by multiple genes that leads to abnormal formation of the hip joint. The Puppy inherits the tendency to develop the disease and the severity may be influenced by factors such as feeding, growth rate and exercise. In juvenile dogs it causes instability of the joint during hip development. At birth the hips are formed normally but soft tissue laxity allows the ball and socket joint to move apart during weight bearing. This results in abnormal forces being applied across the joint. The process is self-perpetuating causing shallowing of the socket, flattening of the ball and damage to the joint surfaces (cartilage). Joint instability can cause pain and lameness in young dogs and osteoarthritis and pain in older dogs.

### **What are the signs of hip dysplasia?**

Hip dysplasia is a common condition particularly affecting medium and large breed dogs. Signs can develop when the dog is immature and growing or when osteoarthritis develops in adults. If one hip is more severely affected than the other then an obvious lameness may be seen. More frequently both hips have similar changes resulting in hind limb stiffness, difficulty rising, reluctance to jump and a rolling hind limb gait.

### **How is hip dysplasia diagnosed?**

Clinical examination may reveal muscle loss (atrophy) over one or both hip joints. Manipulation of the joint may be resented or painful. Instability can sometimes be palpated in conscious patients but often sedation or general anaesthetic is required to fully assess joint laxity. X-rays (radiographs) are used most frequently to assess the degree of joint laxity, joint fit and secondary osteoarthritis.

### **How can hip dysplasia be treated?**

#### Conservative management

Some dogs with hip dysplasia can be managed quite successfully without the need for surgery. Often exercise has to be restricted but this must be tailored to the individual dog's needs. Physiotherapy exercises and hydrotherapy can be beneficial. It is important that dogs with hip dysplasia are maintained at their correct weight with many dogs needing to be placed on a diet. Painkillers (analgesics) and anti-inflammatory drugs may be required for several weeks to months. Lifelong medication is reserved for dogs with debilitating new bone (osteoarthritis) formation around the hip joints. Dogs that fail to respond satisfactorily to conservative management may benefit from surgery. Those dogs that fail to respond to conservative management may need surgery.

#### Surgery

**Total hip replacement (THR)** - This involves replacing a damaged or arthritic hip with an artificial one. This technique is reserved for mature dogs (usually at least 12 months of age). Hip replacement surgery is more commonly performed in medium to large breed dogs, however new smaller implants are now available for small dogs and cats. Recovery from surgery can be reasonably rapid and limb function is often very good. Dogs must be carefully selected for hip replacement, as complications such as implant dislocation can occur.

**Femoral head and neck excision (FHNE)** - This involves removing the painful ball (femoral head and neck) part of the joint. This results in the formation of a false joint where the limb is supported by scar tissue and the surrounding muscles. The surgery can be performed to treat a severely damaged or arthritic hip joint in almost any dog of any age. The recovery following surgery can be prolonged and often the limb ends up slightly shorter, with reduced range of movement. Larger breed dogs tend to have a longer recovery period compared with smaller dogs and cats. Post-operative physiotherapy and hydrotherapy are very important during the recovery period.

### **What is the prognosis following a diagnosis of hip dysplasia?**

When the disease is diagnosed early and treated with a combination of exercise modification, weight control, with or without pain killers (analgesics) then the outlook can be good. A large number of dogs can be managed conservatively with good success. Those that fail to respond may require reconstructive (triple pelvic osteotomy) or salvage (femoral head and neck excision or total hip replacement) surgery. The outcome following surgery is often very good, although a prolonged recovery and complications can occur.

**Total hip replacement (THR)**



**Femoral head and neck excision (FHNE)**

