

WEAR REFERRALS
Small Animal Hospital

ORTHOPAEDICS

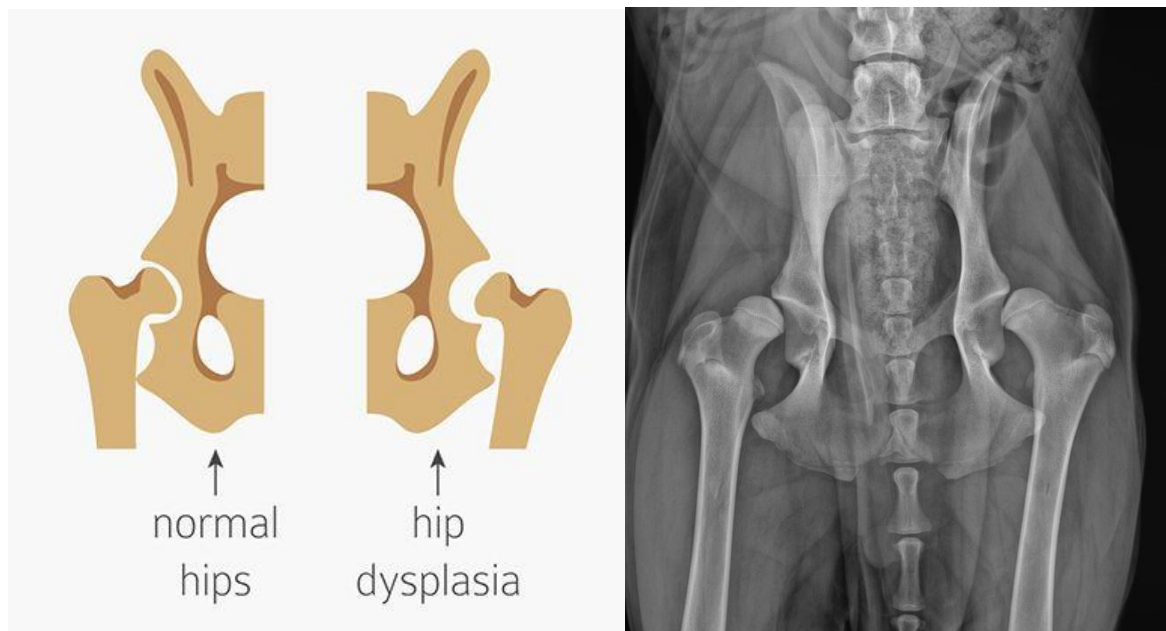
MANAGEMENT OF HIP DYSPLASIA

INFORMATION SHEET

MANAGEMENT OF HIP DYSPLASIA

WHAT IS HIP DYSPLASIA?

Hip dysplasia is a common disease of dogs. It occurs due to abnormal development and growth of the hip joint. Both hips are usually affected, but only one side may show symptoms, or signs may be worse on one side. The onset of clinical signs may not occur on both sides at the same time. Hip dysplasia is manifested early in life by varying degrees of laxity of the muscles and ligaments around the hip joint which results in instability and malformation of the joint components. Osteoarthritis is the long-term consequence of undetected or untreated hip dysplasia.



WHAT ARE THE CLINICAL SIGNS OF HIP DYSPLASIA?

The clinical signs of hip dysplasia, lameness and pain, can be evident as early as four to six months of age. The signs can initially be subtle such as stiffness in the morning, slowness to get up, not wanting to exercise as long or as vigorously, a change in stride of the hind legs, "bunny hopping", wanting to sit down while eating or during walks and reluctance to stand up on the hind legs. Sometimes the only observation is an "inactive" or "laid back" puppy. In some dogs the signs may not be present until it is middle-aged or older.



WHAT ARE THE TREATMENT OPTIONS FOR HIP DYSPLASIA?

Several treatment options are available for treatment of hip dysplasia.

A. NON SURGICAL TREATMENT

This will often be attempted initially:

- EXERCISE - limiting the dogs exercise to controlled walks, avoiding vigorous off lead exercise which will put excessive stress on the joints.
- SWIMMING - can be very beneficial as it will exercise the joints, without weight bearing keeping the muscles toned
- MEDICATION – non-steroidal anti-inflammatory tablets prescribed by your veterinarian are used to relieve the pain and inflammation in the joint. Intermittent medication is usually preferred although some dogs will need to be constantly medicated. Nutraceuticals or chondroprotective agents may also be prescribed
- WEIGHT – many dogs will benefit from losing some weight. It has been scientifically proven that the arthritis in overweight dogs with hip dysplasia will progress more quickly

The prognosis is variable with this approach and varies between published studies. Between 30- 70% of puppies with hip dysplasia will respond to this management regime and not need hip surgery when they are adult.

B. SURGICAL TREATMENT

Double Pelvic Osteotomy

Young dogs (usually 6-10 months of age) that do not have any arthritic changes may be candidates for a reconstructive procedure to save the hip. This procedure is called a double pelvic osteotomy (DPO). This surgery involves making 2 cuts in the pelvic to rotate the socket of the hip to capture the femoral head and improve the instability in the joint. Suitability for this surgery depends on examination of the puppy under anaesthesia to ascertain the angles at which the hip is stable. DPO does not guarantee that osteoarthritis will not develop in the hip.



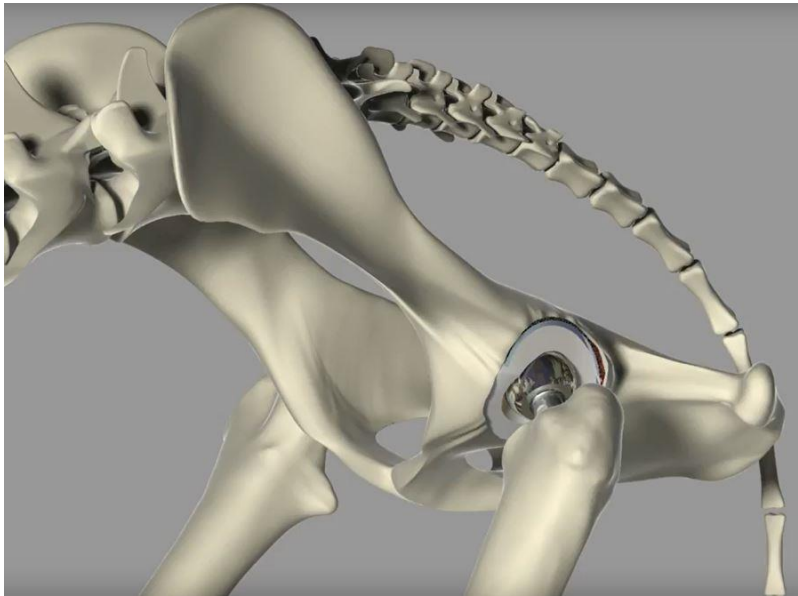
Femoral Head and Neck Excision

FHNE is a salvage procedure performed in some dogs that are not suitable candidates for a total hip replacement (THR). The surgery involves removing the femoral head (ball part of the ball & socket joint). Fibrous soft tissue forms a false joint or 'pseudoarthrosis' between the ends of the bones. Satisfactory outcome can be achieved with postoperative physiotherapy and hydrotherapy but some reduced range of motion, residual lameness and reliance on non-steroidal anti-inflammatory drugs are common.



Total Hip Replacement

A total hip replacement (THR) is a treatment option if the components of the hip joint are worn or deformed from the ravages of arthritis and/or treatment of pain is unsuccessful. A successful hip replacement should restore pain free function to the hip. More information on this procedure can be found overleaf.



TOTAL HIP REPLACEMENT

WHAT IS A TOTAL HIP REPLACEMENT?

A THR is a prosthetic hip that is implanted in a similar fashion as is done in people to completely replace one painful arthritic joint. The modular prosthetic hip replacement system used today has three components - the femoral stem, the femoral head, and the acetabular cup. The components are made of titanium, cobalt chrome and ultra-high molecular weight polyethylene.



WHY CHOOSE A TOTAL HIP REPLACEMENT?

THR's are performed to relieve pain, improve the hip function and allow your dog to return to an active life. The arthritic joint is replaced with the implant so the pain of bone rubbing on bone in the arthritic joint is gone. The decreased range of motion of the arthritic joint is also improved to allow a good range of motion and joint flexibility.

IS YOUR DOG A CANDIDATE FOR TOTAL HIP REPLACEMENT?

If your dog has hip dysplasia and is over 6 months of age you have a possible candidate for a THR. A thorough examination to rule out other problems is a mandatory part of the preoperative examination. Dogs that have already had femoral head and neck excisions are usually not good candidates.

HOW DO DOGS FEEL WITH A TOTAL HIP REPLACEMENT?

Most dogs walk on their new hip immediately after surgery. Most pet owners report their dog's personality improves and that their dog feels great. Gradual return to normal function is allowed between 8 and 12 weeks after surgery. A long-term study found THR to be a very effective method of treating disabling conditions of the canine hip. The majority of dogs displayed marked improvement in walking, sitting, climbing stairs, standing, running, getting into cars, playing and exercise following surgery. THR's have been performed in both pet and working dogs with equal success.

DOES A TOTAL HIP REPLACEMENT "WEAR OUT"

The life of a THR in people is approximately 10-15 years. Replacement of implants due to wear and tear is reported but appears very uncommon partly because dogs weigh less than people, their weight is distributed on four rather than two legs, and their average life span is considerably shorter.



SHOULD BOTH HIPS RECEIVE A TOTAL HIP REPLACEMENT?

Only one hip can be done at a time. The most painful hip should be replaced first. If pain is present on both sides, both sides should be replaced. The interval between surgeries is at least two months. However, over 80% of dogs do NOT need a second surgery despite the presence of osteoarthritis in the other hip.

WHAT DO DOGS GO THROUGH TO GET A TOTAL HIP REPLACEMENT?

The surgery takes 120 - 180 minutes. They are under continuously monitored general anaesthesia. Vital parameters, such as heart rate, heart rhythm, tissue perfusion, respiratory rate and pattern, temperature and blood pressure are monitored. The surgery is performed with extensive precautions to prevent infection. Much attention is paid to preoperative preparation of the patient, instrument preparation, aseptic technique and environment control in the operating room.

Pain medication is administered preoperatively and maintained as long as needed. The patient is hospitalised with 24 hour patient care. The dogs routinely support some weight immediately post operatively. They are generally released from the hospital 2-3 days after surgery.

WHAT IS THE AFTERCARE?

Strict exercise restriction must be enforced for the first six weeks to allow all the tissues to heal around the prosthesis. We normally recommend cage rest for the first six weeks with short lead walks to the garden to toilet. After six weeks following conversation with owners we will normally recommend incrementally increasing lead exercise over a further six week period

WHAT IS THE SUCCESS OF A TOTAL HIP REPLACEMENT?

Total hip replacements have been successfully performed in canine patients since 1974 and have enjoyed excellent results. Over 85% of patients return to normal function after the surgery. Most dogs will run, jump, play normally, and have an improved quality of life.

ARE THERE ANY RISKS?

Yes, however, the incidence of complications is low, but risks exist just as they would for surgery on people. Complications include, infection, dislocation, implant instability, fracture, sciatic nerve damage, persistent lameness as well as the risk of anaesthesia. Extreme precautions are taken to minimise problems with infection and anaesthesia. Problems with this highly technical procedure are minimised by frequent repetition of the same team of surgeons and scrub nurses using the most advanced instrumentation available. The success rate is approximately 90% - which means there is a approximately a 1 in 10 chance of complications.

WHEN SHOULD THE SURGERY BE PERFORMED?

Surgery is recommended when pain or lameness is present. The hip will be painful when extended and/or abducted. Radiographs of the hips are used to confirm the diagnosis of degenerative arthritis and a conservative approach using pain relievers for arthritis may be initially recommended. If your dog is overweight then dieting will be essential prior to surgery. Surgery is recommended if medication is needed over an extended period of time or is ineffective.

Long delays in performing surgery can lead to longer rehabilitation time. THR is ideally performed before atrophy of hind limb muscles occurs. Additionally, a delay means less time for your dog to enjoy the improved pain free function provided by the hip replacement.