



**ANIMAL SURGICAL**  
— & ORTHOPEDIC CENTER —  
A BETTER WAY TO OPERATE + SINCE 1986

## TOTAL HIP REPLACEMENT (THR)

### WHAT IS A TOTAL HIP REPLACEMENT?

THR is a surgical procedure in which a damaged hip joint is replaced with artificial components. The hip is a ball and socket joint containing two bony components, the rounded head of the femur (thigh bone) and the acetabular socket (part of the pelvis). During a THR, the femoral head is removed and replaced with a cobalt chromium stem and ball, and the acetabular socket is reshaped and fitted with a plastic cup. Bone cement may or may not be used to fix the implants in place, depending on the implant type selected for your pet by your surgeon.

### WHY DOES MY DOG NEED A THR?

THR is the gold standard for treatment of hip joint malformation and/or joint instability. The most common reason for considering THR is the presence of moderate to severe degenerative joint disease due to hip dysplasia or arthritis. In addition, THR may be the best option for certain cases of hip luxation (dislocation) or hip fracture.

During your consultation, the surgeon will discuss any other viable options for treatment of your dog's hip condition, and explain the risks, benefits, and long-term projected prognosis for each one in comparison to the THR.

### WHAT ARE THE COMMON SIGNS OF DEGENERATIVE HIP DISEASE?

- Gait abnormalities such as bunny-hopping
- Pain upon flexion or extension of hip joints
- Resistance to exercise or play
- Difficulty in lying down or getting up
- Atrophy of one or both hind limbs
- Dislocation of hip joint

Symptoms generally worsen with age, as degenerative changes increase. Some younger dogs may be diagnosed with hip dysplasia via screening Xrays before showing clinical signs.



*pre-surgery*



*post-surgery*

## IS MY DOG A GOOD CANDIDATE FOR THR?

Our surgeons will carefully assess whether your dog is a good candidate for THR based on a number of factors, including the severity of clinical signs, history, physical exam, size of the dog, radiographs, and likeliness of a favorable outcome.

Some general guidelines are:

- Size: Weight between 40 and 120 pounds
- Age: Over 10 months of age
- Severity of symptoms: Presence of pain that cannot be adequately controlled via medical therapy
- General health: No acute or chronic infections of skin, bladder, or other organ system
- Orthopedic status: No other significant joint or bone disease
- Neurologic status: No significant neurologic disease
- Behavioral status: Able to be adequately confined during recovery period

## WHAT IS THE PROGNOSIS FOR MY DOG?

In the majority of cases, dogs return to near-normal function in the replaced hip and are able to accommodate for the remaining decreased function in the other hip. Most dogs return to a comfortable and satisfactory life after having this surgery on just one side.

If for some reason your dog needs to have a THR on the other side, a minimum of four months is required between the surgeries to ensure that the first hip can adequately bear full body weight while the second hip is healing.

## WHAT HAPPENS DURING THR SURGERY?

Your dog will be admitted to the hospital the night before surgery and will generally stay for two nights after surgery.

Because an infection at the surgical site could result in devastating consequences for your pet, extra precautions are taken to ensure the highest levels of cleanliness in the surgical suite and sterility in the surgical field. Environmental control and maintaining a sterile field around all instruments and personnel is of highest priority. In addition to standard surgical draping, the skin in the area of the surgical incision will be covered with a special adhesive drape impregnated with antimicrobials. Your dog will receive IV antibiotics before, during and after surgery, and if bone cement will be used, antibiotics are mixed into it before placement in the hip joint.

Two surgeons work together with a technician throughout the procedure. A second technician will monitor your dog's vital signs and anesthesia level, and a circulating assistant will provide instruments and supplies as called for by the surgeons.

The surgery begins with opening the hip area to visualize the hip joint. A bone saw is used to remove the head of the femur and a special tool is then used to prepare the inside of the femur for the placement of the prosthetic stem, which is fitted with a prosthetic head. Another instrument is used to prepare the acetabulum for placement of a plastic cup replacement. Each prosthesis is chosen specifically for your dog based on size.

After the incision is closed, post-op Xrays are taken to ensure that the implants are well-seated and that they articulate correctly. A small bandage may be taped in place over the incision to keep the area clean during hospitalization. This will be removed prior to discharging the patient.

After surgery, technicians will closely monitor your pet for post-operative pain. Since most THR patients receive a pre-op epidural anesthetic, recovery is generally smooth and relatively pain-free. Tranquilizers may be given to allow your pet to rest quietly, and additional pain medications will be administered as needed when the epidural wears off. Your dog will also receive antibiotics and anti-inflammatories throughout the hospital stay. These medications, along with oral pain medications, will be sent home with you to be given during the weeks following surgery.

### **WHAT WILL RECOVERY AND REHAB BE LIKE?**

Your diligence in following the surgeon's discharge instructions plays a major role in the success of the surgery. It is crucial to minimize the possibility of your dog slipping and falling during the first few weeks after surgery, to avoid possible dislocation of the hip joint.

About 95% of dogs will begin to use the surgical leg to some extent within 24 hours of surgery. Within a week, most dogs will be moderately weight-bearing on the leg. Full healing and usage of the leg can usually be expected by four months after surgery.

For the first 6 weeks after surgery, your dog must be confined at all times when left alone, but can be out with you when you are at home if you are able to supervise carefully and if the dog is calm and quiet. Brief leash walks are allowed only to go outside to eliminate. No running, jumping or playing with other pets is allowed. Avoid slippery floors and stairs as much as possible.

Xrays will be taken at 6 weeks post-op, and if healing and implant stability are normal, you will begin to gradually increase your dog's exercise over the next six weeks. However, when outside, you must continue to keep your dog on-leash during this time.

Xrays will be taken again at 12 weeks post-op and if all is normal, the goal will be to continue increasing exercise until your dog is at normal activity level at 16 weeks post-op.

### **WHAT ARE THE POTENTIAL COMPLICATIONS OF THIS SURGERY?**

As with any surgery requiring general anesthesia, there is an anesthetic risk. Anesthetic complications are rare, however, and risk is minimized by our use of best practices in anesthesia choice and extensive monitoring of your pet by our surgeons, licensed veterinary technicians, and our advanced monitoring equipment.

An 8% complication rate is reported with Total Hip Replacement surgery. Complications that may occur are loosening of implants, infection, fracture, luxation, and nerve damage. To solve these problems, additional surgery may be required, which may include replacement or removal of implants.