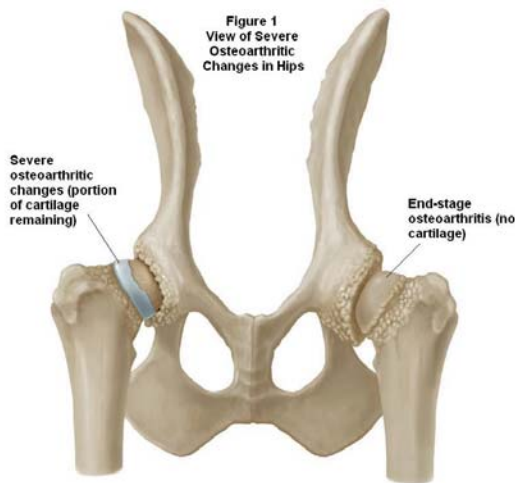




d.c. Vets, inc.

Total Hip Replacement

Mature dogs with hip dysplasia suffer from chronic, painful, degenerative joint disease (arthritis) (see related brochures on hip dysplasia and degenerative joint disease). The clinical signs can occur in one or both rear limbs but are usually bilateral (occurring in both legs). Lameness often appears suddenly after prolonged exercise or after a brisk walk. This is the result of tears or injuries to the abnormal joint tissue. The dog may be slow upon rising and may take a few minutes to warm out of joint stiffness. Occasionally, stifle (knee) ligaments are injured when the dog tries to protect the hip by overextending the stifle joint.



In the chronically affected hip, the joint capsule (which is normally paper-thin) is markedly thickened. Subsequently, extension of the hip becomes difficult. This results in shorter, choppy steps when the dog is running. Due to discomfort and pain, the dog sits rather than stands when he or she stops. When rising, he or she does so slowly and with some degree of difficulty. The dog may be reluctant to chase, jump, or run a long distance. Finally, when pain has restricted limb use for weeks to months, muscle atrophy and loss of muscular support in the rear limbs becomes severe. At the same

time, weight is shifted to the forelimbs and the shoulder muscles enlarge.

Once the patient has radiographic (x-ray) evidence of degenerative arthritis (Figures 1 and 2), it is no longer a candidate for a triple pelvic osteotomy. Over time, many of these dogs will become less responsive to analgesic medications and surgical therapy should be considered.



Two procedures are available:

- Total hip replacement
- Removal of the femoral head and neck excision arthroplasty (femoral head ostectomy, FHO)

Introduced in 1976, total hip replacement has become the only treatment available that provides normal hip joint function once advanced arthritis is present. With this technique, the femoral head and neck (ball portion of the hip joint) are replaced with a cobalt chrome component and the acetabulum (hip socket) is replaced with a plastic cup prosthesis (Figures 3 and 4). A five year followup study of 221 total hip replacements revealed an overall success rate of 91%. Total hip replacement can be done on both hips although many dogs (80-90%) do very well with only one side replaced.

Figure 3: Total Hip Prosthesis in Place

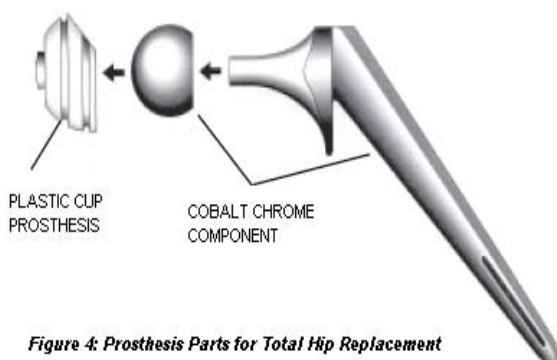
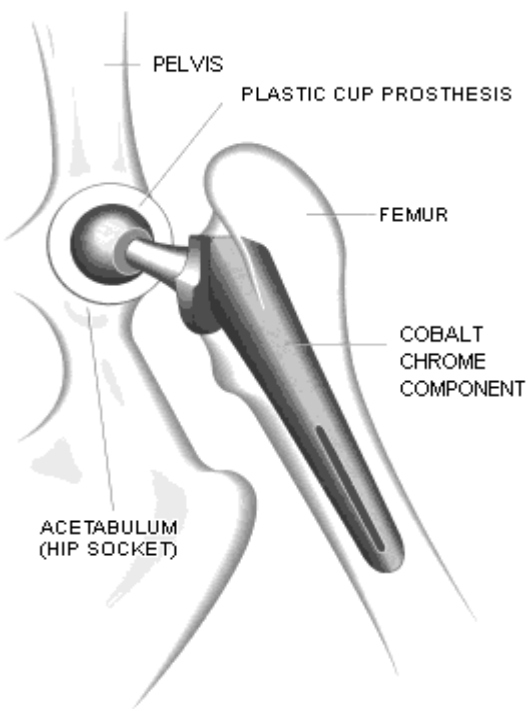


Figure 4: Prosthesis Parts for Total Hip Replacement

Common problems that mimic hip dysplasia:

- Cauda equina syndrome (i.e. lower back problems) (see separate brochure)
- Cranial (anterior) cruciate ligament tears (see separate brochure)
- Other rear limb arthritic conditions

Traditionally, the signs of hip dysplasia are rarely extreme. Usually, only mild to moderate lameness is noted which may suddenly worsen. Dogs with a cranial (anterior) cruciate ligament tear typically hold the affected leg up (which is unusual with hip dysplasia). Patients with back (spinal) problems often scuff their toenails when walking, have an uncoordinated gait, and are

weak in the rear limbs. The dog may have great pain if there is a disc rupture (sciatica) or may show no spinal pain in certain degenerative spinal cord conditions (German Shepherd myelopathy). In any case, the complete evaluation of a total hip replacement candidate will include an examination for these problems. Femoral head excision works well for dogs under thirty pounds and those with unilateral hip dysplasia (see separate brochure). It is less satisfactory for dogs over fifty pounds particularly when performed bilaterally. This is a salvage procedure for those owners who cannot afford the cost of a total hip replacement but need an alternative to constant medication and debilitating pain or for those animals whose other medical conditions do not make them candidates for total hip replacement.

Postoperative Care

Postoperative care is critical to long term success. The most critical element is confinement of the dog to a small area with ample bedding and good footing. Physical therapy begins at suture removal and involves flexing and extending the hip for a few minutes three or four times a day. Swimming therapy and short walks, gradually increasing in length, begin three to six weeks after surgery depending on the individual. Again, complete confinement to a small room, pen, or cage when not working on physical therapy is mandatory. Avoid slick floors, jumping, running, stair climbing, and all acrobatics until recovery is complete.

During your pet’s convalescence, it may be necessary to offer assistance with ambulation (walking). Two such methods are:

Towel Walking

Place a sheet or large towel under your pet’s abdomen as a means of support, holding an end in either hand. Use a towel or sheet that is large enough to enable you to stand in an upright position (Figure 4).

Support your pet so that he/she is unable to bear full weight on the affected limb(s). Over the passage of time (usually two to three weeks), you will notice that your pet will be able to accommodate a greater percentage of its actual weight, requiring less assistance from you.

In the case of a male dog, you will need to reposition the towel/sheet so as not to impede urinary function. This would be done once the dog is outside and ready to urinate. Allow him to lean against you while urinating. This will provide stability for him while urinating.



Supporting ambulation with a towel

Tail Walking

You may also assist your dog with ambulation by holding its tail in an upright manner. This serves as a 'rudder' and provides the needed stability for walking.

NOTE: Not all pets will tolerate this method. You will need to decide which method of assistance will be the most effective.

The Use of Elizabethan Collars

Your pet is being discharged with a plastic cone-shaped collar called an Elizabethan or Buster Collar (Figure below). This collar has been provided for use during the recuperation period and plays an important part in your pet's healing capabilities.

Elizabethan collar



The collar is designed to restrict your pet's ability to reach his/her incision or bandage(s). Licking at an incision area may result in open wounds

(granulomas) that can be difficult to treat. This collar has been provided to protect these areas and also to insure that proper healing is allowed to take place.

Although your pet may exhibit some strange behavior (such as pawing at or rubbing the collar, or walking into stationary objects), after the initial placement of the collar this behavior will usually subside after approximately one to two hours time. Contrary to what one might think, it is not beneficial to remove this collar. To do so only increases the time needed to become accustomed to wearing it.

Be assured that this collar does not constrict breathing passages when worn. The animal will be able to eat, drink, sleep and eliminate while wearing this collar.

Typically, it will only remain in place for the duration of time that the surgical site is sutured or an area is to remain bandaged. We do suggest that once your pet may have this collar removed that you keep it for future use. It may prove to be quite beneficial in the future for aid in treating minor skin irritations, "hot spots," and so forth.

Medicating Your Dog

1. When administering medication in capsule or tablet form to your dog, you may find it much easier to simply place the medication in a small amount of food and offer it as a treat to your pet.
2. If your dog will not accept medication in the above mentioned fashion, it will be necessary for you to manually 'pill' your pet (Figure 6). Place your hand around your pet's upper jaw and gently apply pressure by pressing the lips against the teeth. Using your other hand, gently pull the lower jaw downward and place the medication in the very back of your pet's throat. By holding his/her muzzle and gently stroking the throat, you will stimulate your pet to swallow.



Administering medication to a dog

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