

Hip Dysplasia

Surgery Service



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What is hip dysplasia?

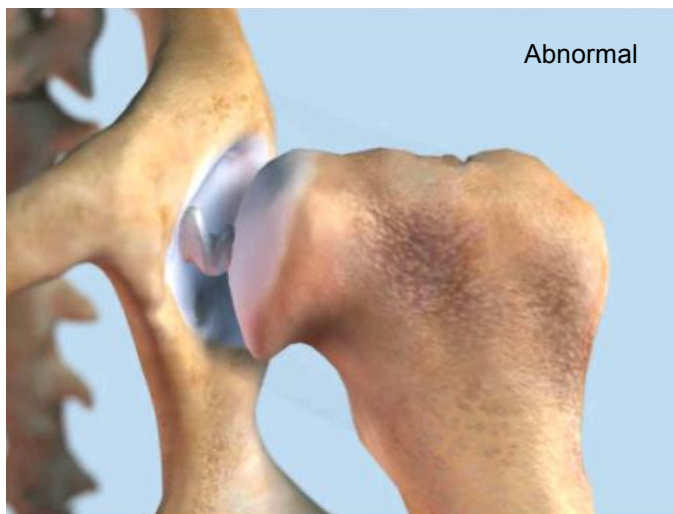
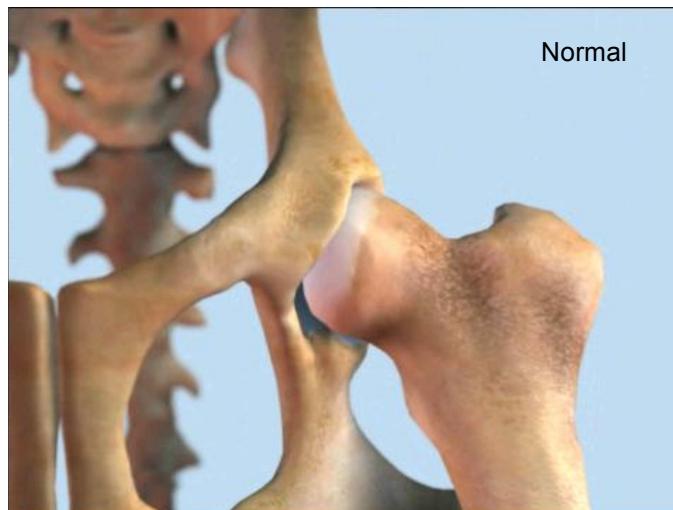
Hip dysplasia is a developmental condition of the hip joints. Looseness of the hips in young dogs may result in arthritis of the joints over a period of months to years. Any breed can develop this condition, however large breeds are most commonly affected. Although defective genes cause hip dysplasia, limited food consumption frequently will slow the growth of affected puppies and prevent the development of this condition. Looseness of the soft tissues and poor muscling allow the head of the femur to slip in and out of the hip when a dog runs and plays. This wears the cartilage off the head of the femur and socket (acetabulum) of the hip. In addition, the soft hip bones in puppies can become permanently deformed and the rim of the hip socket may develop small painful fractures.

Signs

Dogs commonly are 5 to 8 months of age when signs appear, yet others are older than one year. Some dogs, however, are quite geriatric when the problem is first noted. Warning signs of hip dysplasia may include an awkward gait that is frequently dismissed as “a clumsy puppy”. Waddling of the hind quarters when walking, bunny hopping, stiffness when first getting up from a nap, a clicking sound heard from the hind end, lameness on one or both hind limbs, shortened stride of the hind limbs, exercise intolerance, and pain upon petting the hip region are clinical signs that also can be seen by pet owners. Signs that your veterinarian may pick up include pain on extending or spreading the hips apart. Your veterinarian may also detect looseness of the hips called the Ortolani sign. In some cases this abnormality can only be detected when your dog is under the influence of twilight sedation.

Diagnosis

The diagnosis of hip dysplasia is based on the evaluation of x-ray images of the pelvis. In order to obtain properly positioned x-ray images, your dog may need to receive twilight sedation. Only looseness of the hip joint may be seen on the x-ray image in young dogs. As the dog matures, the affected joints develop bone spurs, a sign that the hips are degenerating. A special type of x-ray using the PennHIP technique, which is superior to standard x-rays (OFA), allows for detection of hip dysplasia in puppies as young as 4 months of age. This type of x-ray detects the looseness of the hip joint that may go unnoticed with standard OFA x-rays.



Hip Dysplasia Continued...

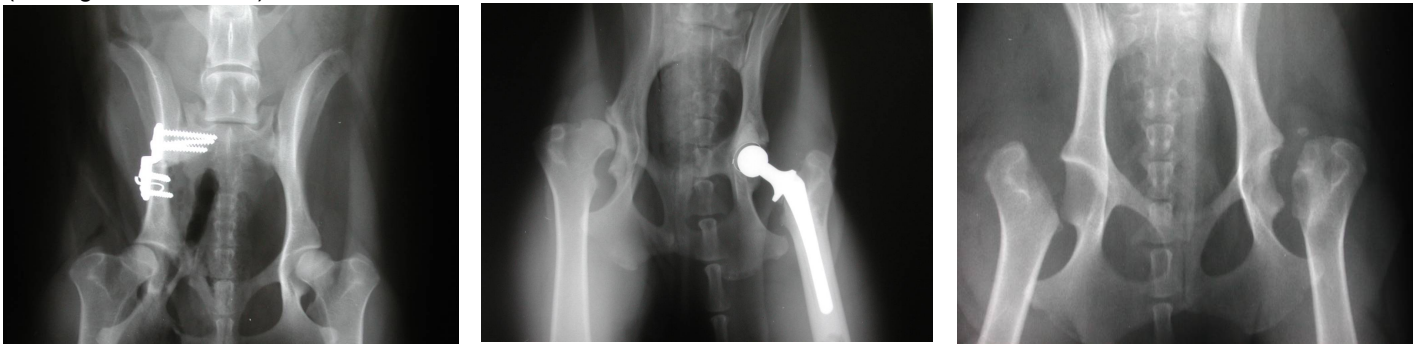
The day of surgery

Our anesthesia and surgical team will prescribe a pain management program, both during and after surgery that will keep your companion comfortable. This will include a combination of general anesthesia, injectable analgesics, epidural analgesics, oral analgesics, and anti-inflammatory medication.

Treatment

Nonsurgical treatment of hip dysplasia includes exercise restriction and administration of medications to relieve pain. If medical therapy is not effective, surgery is needed. The triple pelvic osteotomy (TPO) is a good treatment for dogs that are between 5 to 12 months of age. The TPO involves cutting the pelvis in three places and rotating the hip socket over the head of the femur bone. A plate and screws is used to secure the pelvis in place. During the healing process, the femoral head becomes seated deeply within the hip socket (see fig below left).

The total hip replacement (THR) is used in medium to large patients that are no longer candidates for TPO. During the procedure a metal and plastic cup are placed in the hip socket and a metal implant is placed in the femur bone (see fig below middle).



The femoral head and neck osteotomy (FHO) involves removal of the head and neck of the femur bone. Scar tissue develops to form a false joint (see fig below right).

Aftercare and results

After surgery, you can continue to give your pet a prescribed pain reliever to minimize discomfort. It's also extremely important to limit your dog's activity and exercise level if TPO or THR has been performed. Exercise is encouraged following FHO. Rehabilitation exercises can be done at your home or if you choose, by professionally trained therapists at an animal rehabilitation center. Rehabilitation therapy should be continued until your dog is bearing weight well on the operated limb (typically 2 - 4 weeks after surgery). Your companion's surgeon will monitor the healing process with at least two follow-up examinations at 2 weeks and 2 months after surgery. By 2 weeks after surgery, most dogs are weight-bearing on the operated limb and by 2 to 4 months after surgery your companion should have made a complete recovery.

Complications of the triple pelvic osteotomy may include progression of arthritis, damage to the sciatic nerve of the hind limb, infection, loosening of screws and damage of the urethra (tube that passes urine from the bladder to the outside). Complications of total hip replacement may include infection, loosening of the implants, nerve damage, fracture of the femur or hip socket, and dislocation of the hip. Complications of femoral head and neck excision may include decreased range of motion of the false joint, loss of function of the limb, nerve damage, and infection.

Hip Dysplasia Continued...

In general, about 90% of acceptable candidates that undergo the TPO surgery achieve full limb function and return to athletic activities. Similarly, total hip replacement has a 90 to 95% success rate. The FHO has the best outcome in small dogs, yet intermittent hip soreness may be seen with heavy activity.

Assessment and recommendations

Patient: _____ Date: _____

Treatment

- Surgery is recommended
 - Triple Plevic Osteotomy
 - Total hip replacement
 - Femoral head and neck excision
- Medical therapy for hip dysplasia is recommended
 - No medications or special diet are necessary at this time.
 - Prescription joint diet: _____
 - Rehabilitation therapy with prescribed exercise program to strengthen muscles
 - Neuroceutical: _____
 - Nonsteroidal anti-inflammatory medication: _____
 - Other medication: _____
 - Hyaluronic acid injection into the hip(s)
- Exercise
 - Unlimited
 - Confine your pet to the house other than very short leash walks necessary for bowel movements and urination
 - Restrict exercise to leash walks 10 minutes twice daily
- Preparation for surgery
 - Start fasting your companion at midnight before the surgery; water should not be withheld
 - Pepcid AC 10 mg tablets: give _____ tablet(s) with water (if needed use a syringe) 6 AM on the day of surgery

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