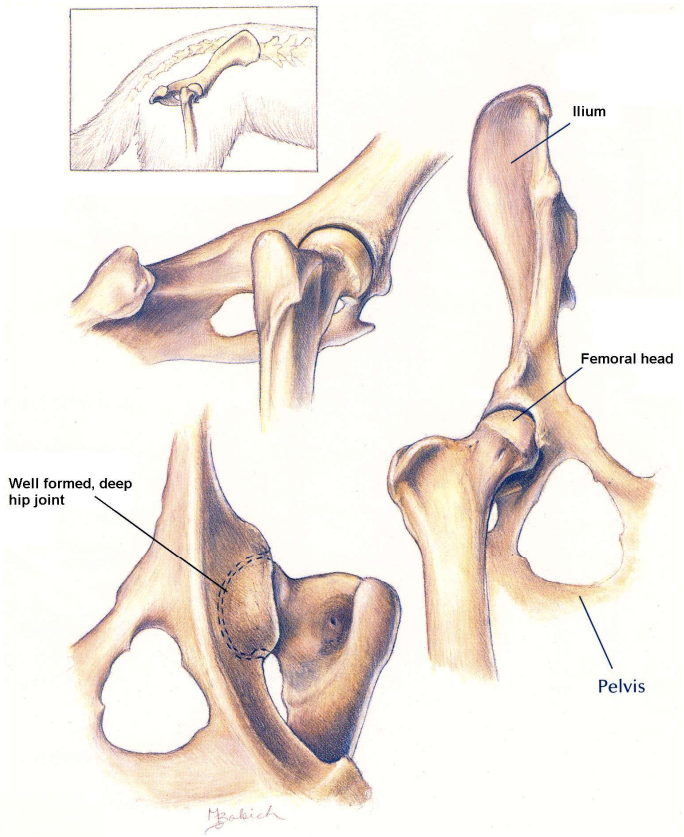
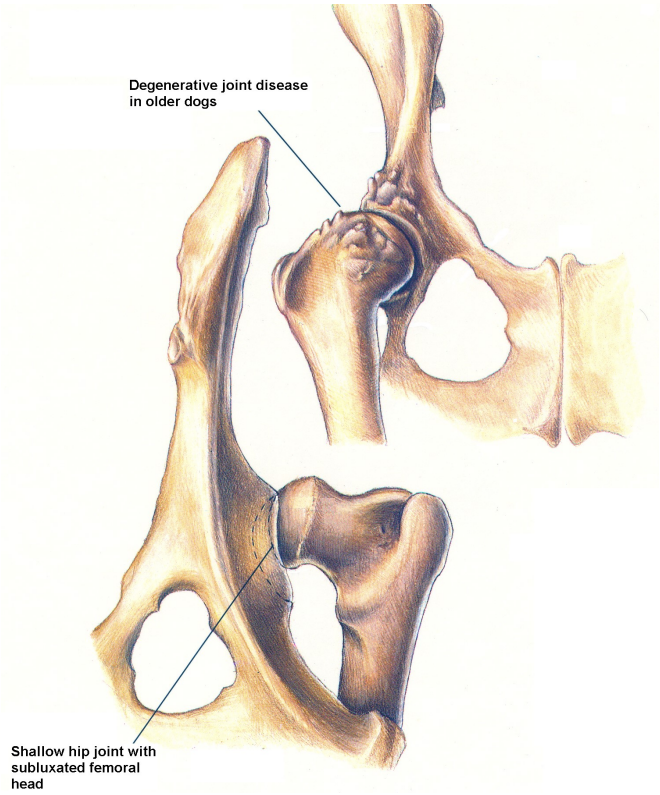
WHAT IS HIP DYSPLASIA?

Hip dysplasia is defined as a deformity of the coxofemoral (hip) joint that occurs during the growth period. Hip dysplasia is a hereditary condition that creates a poorly fitting hip joint. As the dog walks on this joint, arthritis will eventually develop, causing pain in the joint. The degree of lameness that occurs is usually dependent upon the extent of arthritic changes in the hip joint.



Is this found in certain breeds of dogs?

Most breeds of dogs can be affected with hip dysplasia although it is predominantly seen in the larger breeds of dogs, such as the English Bulldog, German Shepherd, St. Bernard, Labrador Retriever, Pointers, and Setters. There is equal distribution of the disease between male and female dogs.



What are the clinical signs, and when do they occur?

The typical clinical signs of hip dysplasia are rear leg pain, in-coordination, and a reluctance to rise. Wasting of the large muscle groups in the rear limbs may eventually develop. Most owners report that the dog has had difficulty in rising from a lying position for a period of weeks or months; lameness and pain subsequently develop. Again, the severity of signs and progression of the disease usually correlate with the extent of arthritis in the joint. Clinical signs can occur as early as 4-6 weeks of age, but most dogs manifest the disease as lameness around one to two years of age. Dogs with mild hip dysplasia and minimal arthritis may not experience pain and lameness until they reach 6-10 years of age.

How is it diagnosed?

Tentative diagnosis of hip dysplasia is made on the basis of history, breed, and clinical signs. Because the clinical signs may mimic other diseases, final diagnosis of hip dysplasia can only be made on the basis of specific radiographic (x-ray) findings. To obtain the proper radiographs, dogs must be carefully positioned on the radiographic table. This procedure requires the use of a short-acting anesthetic. The radiographs are evaluated for abnormal shape of the hip joint and for degenerative changes (arthritis).

How is it treated?

The degree of clinical signs and arthritic changes in the joints determine the specific approach to therapy. Treatment of hip dysplasia may involve the use of drugs or surgery, or both. The options are as follows:

l. **Anti-inflammatory drugs**. Several drugs will give relief from pain. But since these drugs are likely to be used long term, the drug(s) need to be chosen cautiously and with consideration of the dogs overall health. Most have some side-effects and most require administration once or twice daily. Extreme caution is advised when these drugs are given to dogs with a history of kidney disease or with marginal kidney function. Many of these drugs have an adverse effect on blood flow to the kidneys and can worsen kidney failure. This does not appear to be a concern if kidney function is normal. Dogs with a history of ulcers are also at risk for complications. Your veterinarian can determine the risk for your dog.

2. **Surgery**: There are four main procedures: femoral head ostectomy (ball removal), triple osteotomy, and hip joint replacement.

Femoral head ostectomy: The hip joint is a ball and socket joint. FHO is the removal of the ball part of the joint. This gives excellent results in small dogs because a functional "false joint" forms. However, some large dogs may not form this "false joint" very well. This procedure is usually used in large dogs if arthritis is very severe, if the hip dislocates, or if the expense of the other procedures is prohibitive.

Triple osteotomy is a procedure in which the pelvis is cut in three places around the hip joint. The bone is rotated to create better alignment with the femoral head (the ball). It is reattached so that the joint functions in a more normal fashion without looseness and pain. This should only be performed in a dog with no arthritic changes in the joint, usually less than 24-month old.

Hip joint replacement: A stainless steel ball and artificial socket are attached to the pelvis and femur, replacing abnormal joint. It is an expensive procedure, but it may give many years of pain-free use of the hips.

I am considering breeding my dog. Can anything be done to prevent hip dysplasia in the puppies?

Research has shown that the cause of hip dysplasia is related to a combination of genetic and environmental factors. The disease is known to be an inherited condition and the genetics of hip dysplasia are extremely complicated. In addition, environmental factors such as overfeeding and excessive exercise can predispose a dog (especially growing puppies) to developing hip dysplasia.

Here are some practical suggestions:

1. Have your dog radiographed before breeding to be sure the hips are normal. If they are not, this dog should not be bred.
2. Consider a feeding program tailored to your dog's breed to slow growth. Some dog food manufacturers make puppy foods for large breed dogs. This approach slows the growth of your puppy until the body is mature enough to carry the heavy muscle mass & weight.
3. Avoid excessive exercise in a growing puppy. Any abnormality in the structure of the hip joint is magnified if excessive running and jumping occur. It is not necessary to treat your puppy as it were handicapped, but long sessions of running or chasing thrown objects can be detrimental to joints.
4. **Preventative Surgery: *Pubic Symphysiodesis*-** this is a simple procedure performed in 3-4 month old dogs that already show signs of hip joint instability or who have a breed associated risk of hip dysplasia. This surgery uses either a radio-scalpel or laser to "fuse" the pubic bone before the rest of the pelvic bones stops growing. This causes the rest of the pelvic bones to rotate outward as they continue to grow. This compensates for the shallow cup and the joint instability. Often performed at the time of juvenile spay/neuter.