



# Southeast Veterinary Specialists

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## Hip Dysplasia

Hip dysplasia is a developmental disease characterized by pain and inflammation of the hip joints. This condition is commonly recognized in large breed dogs; however, all breeds can be affected. It is usually a problem in both hips of a given animal; however, one side may be significantly worse than the other.

The exact cause of hip dysplasia is unknown; however, several factors have been found to play a significant role. The most important factor in the development of hip dysplasia is genetics. The OFA (Orthopedic Foundation for Animals) has developed a screening system to determine an animal's propensity for the development of hip dysplasia. Radiographs are taken after 2 years of age and sent to the OFA where they are scored based on specific criteria. This screening process decreases the incidence of hip dysplasia in the general population; however, it still does not ensure that a specific puppy from excellent parents will not develop hip dysplasia.

Nutrition is also important in the development of hip dysplasia. Puppies fed diets high in protein for rapid growth are more at risk than those fed diets for slower growth. A puppy's size is determined genetically. Large breed puppies should be fed a diet to reach that predetermined size over *at least* 12 months. People are generally proud of their puppies and want them to be as large as possible, as fast as possible. This rapid weight gain is not good for hip development and should be avoided.

So, what is hip dysplasia? The fundamental problem in dogs with hip dysplasia is joint laxity or "looseness". This occurs early in development as a result of a growth discrepancy between bone and the supporting soft tissues. This joint laxity causes pain due to stretching of the joint capsule and "bumping" of the femur (thigh bone) on the pelvis when the puppy walks. The pain due to laxity is generally seen between 5 – 12 months of age. This pain will diminish with time in some dogs as the hips gradually "tighten" with growth; however, this is inconsistent and unpredictable.

With age, the degenerative phase of hip dysplasia ensues. This is commonly referred to as "degenerative joint disease" (DJD) or "arthritis". In this phase, the cartilage of the hip degenerates and bony proliferation occurs around the joint as the body attempts to stabilize the laxity. The pain in these dogs is due to inflammation, cartilage erosion, and bone rubbing on bone with movement. This is usually noticed in middle to older aged dogs as pain when rising or after exercise. The disease can become quite severe as the dog ages resulting in a substantial decrease in quality of life due to pain.

Treatment of hip dysplasia can be medical or surgical. Medical treatment consists of low impact exercise (no running, jumping, etc.), swimming, weight reduction, and medication to control the pain and inflammation. Many dogs respond well to medical therapy and do not require surgery. Surgical treatment generally consists of one of three procedures. The Triple Pelvic Osteotomy (TPO) is performed in young dogs when pain is due to laxity without evidence of DJD. The goal of this procedure is to decrease the laxity and prevent the development of DJD later in life. The Total Hip Replacement (THR) is performed in mature dogs with DJD. This procedure replaces the bone and cartilage of the hip joint with metal and plastic. It is a valuable procedure in some dogs, however candidates for this procedure are chosen carefully based on several criteria. In dogs that are not candidates for the TPO or THR, the final option is the femoral head and neck ostectomy (FHO). This procedure involves the removal of the head of the femur which normally articulates with the pelvis. After this procedure, the dog develops a pain-free, "false joint" which functions quite well in most cases.

The correct treatment for an individual dog depends on several factors. It is important for us to work together to make the proper choice for your pet as well as your lifestyle. The most important fact to know about hip dysplasia is that while it is a painful condition, there are options available for treatment. No animal should suffer unnecessarily.

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