Hip Dysplasia Surgical Options

What is Hip Dysplasia?
Hip dysplasia is a term used to describe an abnormal hip joint in which there is laxity (looseness) between the femoral head and the acetabulum (cup). This developmental abnormality typically leads to secondary changes of the joint including thickening of the joint capsule, flattening of the femoral head, and osteoarthritis of the joint. Some dogs can lead normal lives with hip dysplasia and the secondary arthritic changes caused by it. Other dogs will become lame at a young age from the joint pain. Lameness in older dogs is typically due to bone-on-bone contact caused by the chronic, severe osteoarthritis. Hip dysplasia can happen in any breed, but it is most common in Labrador Retrievers, Golden Retrievers, and Newfoundlands.

Treatment Options

**Triple Pelvic Osteotomy (TPO)**
This procedure is performed on young dogs (5-12 months) diagnosed with hip dysplasia prior to the onset of osteoarthritis. In this procedure, the pelvis is cut in three places allowing the acetabulum to be rotated using a specially designed plate. This acetabular rotation causes the femoral head to completely seat within the acetabulum. Since this procedure modifies a patient’s existing hip anatomy, it works best on joints that have some growth potential left allowing them to grow (remodel) into their new anatomy. This procedure has been shown to prevent or slow the progression of osteoarthritis if cases are selected appropriately.

**Femoral Head and Neck Ostectomy (FHO, FHNE)**
This surgery is a salvage procedure, which means that it can be, and usually is, performed after osteoarthritis has become so severe that it limits pets’ activity and/or makes them constantly uncomfortable. It is the osteoarthritis and bone-on-bone contact between the femoral head and acetabulum that results in pain. This procedure consists of removing the head and neck of the femur (thigh bone). The limb is then reliant on muscles and the formation of a fibrous joint for support. Patients undergoing an FHO will not have the function of a normal hip and can be somewhat limited in the amount of activity they can endure. However, it significantly reduces or eliminates joint pain and results in notably improved rear limb function.

**Total Hip Replacement (THR)**
THR results in a functionally normal hip and is performed when hip osteoarthritis limits a dog’s comfort and activity. The procedure consists of removing the existing, degenerative acetabulum and femoral head and replacing them with prostheses. The acetabulum is replaced with a plastic cup and the femoral head is replaced with a cobalt-chrome ball and stem. These implants are secured in place either biologically or with bone cement. The result is a fully functional pain free prosthetic joint.