

Canine Hip Dysplasia

What is hip dysplasia?

Hip dysplasia is a term used to describe an abnormal hip joint in which there is laxity or looseness between the femoral head (ball) and the acetabulum (cup). This developmental abnormality typically leads to degenerative changes in the joint(s) including thickening of the joint capsule(s), flattening of the femoral head(s) and eventual development of osteoarthritis. Most dogs with hip dysplasia and the accompanying arthritis lead normal lives. Some dogs will become lame at a young age secondary to inflammation, soft tissue degenerative changes and developing arthritis. Lameness in older dogs is typically due to pain associated with chronic bone-on-bone contact.

Treatment Options:

Triple Pelvic Osteotomy (TPO)

This procedure is only available for young, growing dogs (~5-11 months of age) diagnosed with hip dysplasia prior to the onset of osteoarthritis. For this procedure, the pelvis is cut in three places allowing the acetabulum to be rotated outward using a specially designed bone plate. This outward rotation of the acetabulum causes the femoral head to completely seat (capture) within the acetabulum. Since this procedure alters a patient's hip anatomy, it works best on joints that have some remaining growth potential. This allows the femoral head and acetabulum to further develop resulting in a better fit between each other. In long-term studies this procedure has been shown to prevent or slow the progression of osteoarthritis when cases are selected appropriately.

Femoral Head and Neck Osteotomy (FHO)

This surgery is a salvage procedure meaning that it can be, and typically is, performed in patients with severe osteoarthritis. Most patients have already failed all medical efforts to relieve chronic pain and debilitating arthritis. This procedure consists of removing the head and neck of the femur (thigh bone) relieving the painful bone-on-bone contact. The limb is then reliant on muscles and the formation of a fibrous joint for support. Patients undergoing an FHO will not have the same function as patients with a normal hip, but are pain free and typically get back to a normal lifestyle without the need of daily medications.

Total Hip Replacement (THR)

THR consists of removing the arthritic acetabulum and femoral head and replacing them with prostheses. The acetabulum is replaced with a dense polymer cup and the femoral head is replaced with a metallic ball and stem. The procedure results in a pain free, essentially normal hip joint though many patients continue to have a bunny-hopping gait while running.

