

**Definition:** Hip dysplasia is an inherited development disorder characterized by a poor fitting hip joint with poor muscle development in the rear legs. Hip dysplasia is more common in certain breeds of dogs, but has been seen in occasionally in most breeds and even in cats. Large breeds with rapid growth are typically more severely affected. The hip is a ball and socket joint that normally is “tight” with very little laxity. In young dogs with hip dysplasia there is increased laxity which causes abnormal wearing of the cartilage in the joint. Over time, this abnormal wearing leads to cartilage damage and osteoarthritis. The changes to the joint associated with hip dysplasia vary from mild to severe.

**Symptoms:** The age of onset symptoms of hip dysplasia is highly variable. Severe cases can begin to show signs as early as 3-4 months of age. Many patients do not show symptoms until they are adults and arthritis has developed. Once symptoms appear they may wax and wane, often depending on level of activity, but typically they will progress and get slowly worse. Common symptoms of hip dysplasia include any combination of the following: difficulty rising, stiffness in the rear legs, “bunny hopping” gait, lameness, reluctance or inability to jump, muscle atrophy in the thighs, or crying and whimpering.

**Diagnosis:** The symptoms of hip dysplasia are similar to several other common orthopedic and neurological conditions such as spinal problems and knee injuries. A definitive diagnosis can usually be made through an experienced orthopedic examination and e-rays. If more than one orthopedic problem exists, then knee or spinal problems are usually addressed prior to surgery for the hips.

**Treatment:** A variety of treatment options exist for hip dysplasia, depending on the severity of the symptoms, the age of the patient, and practical/financial considerations. Some cases can be successfully managed with non-surgical means. Non-surgical treatment of hip dysplasia usually involved a combination of weight control, exercise modification, and non-steroidal anti-inflammatory drugs. In some cases “chondroprotective” agents such as glucosamine, Cosequin, or Adequan may be helpful. Many dogs with hip dysplasia will have decreased pain and improved function with surgical treatment. More detailed information on each procedure is available, the following is a brief overview of the indications for each procedure.

**Pubic Symphysiodesis (PS):** Indication for young puppies (approximately 14-20 weeks of age) with significant hip laxity. Fusion of the pubic symphysis causes altered growth of the pubis and improved positioning of the hip sockets, thereby preventing hip damage at an early age.

**Triple Pelvic Osteotomy (TPO):** Indicated for older puppies (approximately usually 6-12 months of age) with moderate hip laxity and no arthritis. This procedure can occasionally (rarely) be done on older dogs (approximately 1-2 years of age). Surgical rotation of the pelvis, including the hip socket, decreases hip laxity, helps to improve function, and prevents future pain and arthritis. Patients with severe luxation, major deformity of the ball or socket, or arthritis may not be candidates for TPO regardless of age.

**Total Hip Replacement (THR):** Indicated for skeletally mature dogs (approximately over 12 months of age) with hip pain. Replacement of the hip with a metal ball and plastic socket eliminates any arthritis pain. THR can return patients to normal or near-normal function. Good overall health and healthy bone surrounding the hip are requirements for a successful procedure.

**Femoral Head and Neck Osteotomy (FHO):** Indicated as pain relieving salvage procedure on any age dog. Removal of the femoral head and neck removes the bone-on-bone grinding that can occur with hip dysplasia, this removing a major source of pain. FHO is the only surgical alternative for very small dogs and cats. Smaller patients usually do very well with this procedure, but results are less consistent in large dogs.

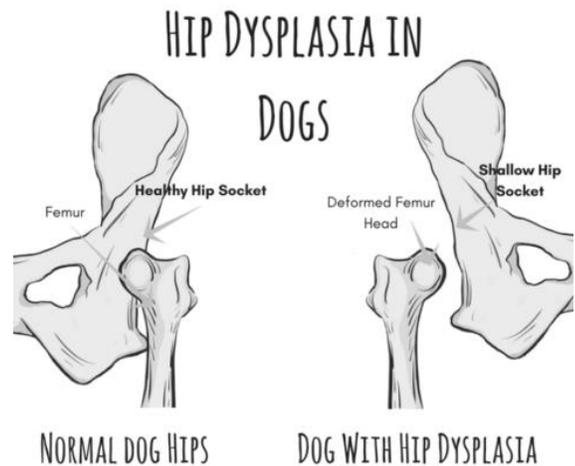


Figure 1: Hip Dysplasia in Dogs. (2018). [Image]. Retrieved from <https://www.honestpaws.com/blogs/pet-care/hip-dysplasia-in-dogs>