

Current perspective on Golden hips

- Scott A. Krick, DVM

Perhaps no other topic relating to Golden Retrievers has generated so much discussion, misunderstanding, information, dis-information, hurt feelings, and gossip as that of a dog's hip status. There are many reasons for this. Foremost is the inescapable fact that the breed has many representatives who harbor "bad hips". Another reason is that there is a tremendous amount of misunderstanding on exactly what constitutes "bad" (or "good") hips. Also, hip problems have been heavily emphasized during breeding and purchasing considerations.

If nothing else, I hope to leave you with a clearer understanding of what all the fuss is about. The hip (coxofemoral) joint of the dog is a "ball and socket" joint. The head of the femur ("ball") is seated in the acetabulum ("socket") of the pelvis. Although many factors will affect the function of this joint, perhaps the most widely accepted indicator of the joint's status is its laxity (looseness of the ball and socket joint). Consequently, most methods of evaluating this joint focus on the degree of laxity.

Description

Dysplasia is a "catch-all" term used to describe a hip joint in which some or all of the signs associated with joint instability are present radiographically. Many factors can contribute to "hip dysplasia." For the most part, dysplasia is an inherited instability of the joint. This instability can be compounded by environmental factors such as injury to the joint, and by dietary factors such as pushing rapid growth in young puppies. It is my opinion that if a dog is predisposed to joint instability, you can aggravate the condition by overfeeding high protein diets and by excessive exercise, but you cannot create problems if the dog is not already genetically predisposed. Conversely, if a dog is genetically predisposed, it would be wise to encourage slow growth by switching to adult food at six months of age, not using high protein foods, and by discouraging excessive stress on the hip joint during exercise.

Diagnosis

Most people find it surprising that physical examination of the hips by a veterinarian is, itself, not a very reliable way to evaluate the hip joint status. There are several reasons why this is true. Perhaps the greatest reason is that there is a substantial amount of muscle mass surrounding the hip making palpation of the joint itself virtually impossible. Another significant factor is that pain associated with degenerative joint disease will vary considerably among individuals, making assessment based on resentment of manipulation very subjective. This is not to say, however, that physical examination and observation are useless. A thorough history and examination often reveal that the dog experiences difficulty when rising from a lying position. Many dogs exhibit reluctance to jump up or to climb stairs (actions that place greater weight and stress on the hip joints). Some dogs show "bunny-hopping" gait in which they run using both back legs together. While this

can also be normal, it commonly suggests that the dog is unconsciously "sharing" the weight between the legs rather than using them alternately. Some individuals show marked lameness (limping). A veterinarian may also note atrophy (loss of muscle mass) of the thigh muscles suggesting that the dog is not using the limb as athletically as usual. This is not specific to the hip joint, but may support a diagnosis of hip joint problems. Additionally, a dog who resents full extension of the rear limbs may be experiencing degenerative problems with its hips. The final complicating factor is that hip joint pain is often episodic. The dog may be physically "normal" some or most of the time, and therefore may appear to be normal on physical examination even in the presence of substantial degenerative changes.

The two most widely used methods of evaluating the hips are the OFA® technique and the PennHip® technique. Both rely on radiographs (x-rays) of the hip joint to assess its conformation and stability. OFA® evaluation is performed entirely through subjective interpretation of observation, while PennHip® evaluation relies on actual measurements of laxity. As you are probably aware, there is a great deal of controversy as to which of the methods of evaluation is better. I personally feel that the PennHip® method is much more accurate, repeatable, and predictive of future degenerative joint disease. Using its information and recommendations, it is possible to actually improve hip status in succeeding generations through selective breeding. The arguments against using it most frequently arise from individuals who are apparently afraid to find out the truth about their dog(s) or breeding lines, because rarely are there legitimate reasons for distrusting the results.

Treatment

Once a diagnosis of hip dysplasia is made, there are several options for the dog and owner. In "mild" cases no treatment may be indicated. One of the "nutriceuticals" (products used in treatment which are not considered drugs) such as Glycoflex®, Inflammex®, glucosamine sulfate, chondroitin sulfate or Cosequin® may be recommended. This class of products is claimed to increase joint fluid viscosity and provide nourishment for the joint surfaces. Until recently no controlled studies had been done to document the effectiveness of the nutriceuticals. A study of a similar injectable product (Adequan®) suggested marked improvement in the joints of dogs treated versus the untreated control group. I have been very impressed with the effects of Glycoflex® in particular in reducing or alleviating the symptoms of discomfort associated with joint problems. Another option available is the use of non-steroidal antiinflammatory drugs. This category of medication includes aspirin, phenylbutazone, Rimadyl®, Etogesic®, Arquel® and other drugs. While they may give relief from the symptoms of joint pain, they do not improve the joint in any way. A third choice is steroids such as prednisolone and methylprednisolone. Steroids are, for me, the drug of last resort for joint pain. Like the non-steroidals, these drugs do nothing to improve the joint. They are strictly used to reduce inflammation. Long term use of either steroidal or non-steroidal may actually contribute to degeneration of the joint. I have found that the nutriceutical products may decrease or eliminate the need for the other classes of medications in many cases.

Another consideration for the treatment of dysplasia involves surgical intervention. There are several procedures used to restore some or all of the function of the joint. Total hip replacement is the "gold standard" by which other procedures are measured. Like in humans, a new metal alloy "ball" and an acrylic "socket" are installed to replace the damaged one(s). Success rates are high in the 90 percentile for nearly perfect return to function. Many surgeons have found that replacement of only one affected hip often returns the dog to soundness even if initially both legs are affected, so rarely does the other hip require replacement. This is appealing since the surgery generally costs in the \$1,800 to \$3,000 price range.

Pectinectomy involves cutting the tendonous attachment of the "groin" muscle known as the Pectineus. This relieves the immediate tension on the hip joint and tends to diminish pain. Unfortunately this procedure is often only a temporary solution to the chronic problem. This procedure has become less frequently used because of this fact .

The other commonly used surgical options include the Triple Pelvic Osteotomy (TPO), and the Femoral Head and Neck Excision (FHO). The TPO involves cutting the supports for the "socket" and realigning it so as to reduce stress on the hip joint. The FHO involves completely removing the femoral head ("ball"), allowing the gluteal muscles to support the weight of the rear leg and thus avoiding any bone on bone contact. Both techniques can restore good to excellent function to the dog depending on the underlying problem and the dog's age and weight.

Ideally, it is best to avoid the problem all together. The only way to do that is to screen all potential breeding animals and breed only dogs of "better" hip conformation, so as to eliminate affected animals from the breeding population. Until a concerted effort is made to accomplish this, however, the tragedy of hip dysplasia will remain a common occurrence.