OFA GUIDELINES FOR GRADING CANINE HIP DYSPLASIA

There are approximately 9 different anatomic areas of the hip that are evaluated.

1. Craniolateral acetabular rim
2. Cranial acetabular margin
3. Femoral head (hip ball)
4. Fovea capitus (normal flattened area on hip ball)
5. Acetabular notch
6. Caudal acetabular rim
7. Dorsal acetabular margin
8. Junction of femoral head and neck
9 . Trochanteric fossa

The radiologist is concerned with deviations in these structures from the breed normal. Congruency and confluence of the hip joint (degree of fit) are also considered which dictate the conformation differences within normal when there is an absence of radiographic findings consistent with CHD. The radiologist will grade the hips with one of seven different physical (phenotypic) hip conformations used: normal which includes excellent, good, or fair classifications, borderline or dysplastic which includes mild, moderate, or severe classifications. Seven classifications are needed in order to establish heritability information (indexes) for a given breed of dog. Definition of these phenotypic classifications are as follows:

1. **Excellent** - this classification is assigned for superior conformation in comparison to other animals of the same age and breed. There is a deep seated hip ball (femoral head) which fits tightly into a well-formed hip socket (acetabulum) with minimal joint space. There is almost complete coverage of the hip socket over the hip ball.

2**. Good** - slightly less than superior but a well-formed congruent hip joint is visualized. The hip ball fits well into the hip socket and good coverage is present.

3. **Fair** - assigned where minor irregularities in the hip joint exist. The hip joint is wider than a good hip phenotype. This is due to the hip ball slightly slipping out of the hip socket causing a minor degree of joint incongruency (called subluxation). There may also be slight inward deviation of the weight-bearing surface of the hip socket (dorsal acetabular rim) causing the hip socket to appear slightly shallow

4. **Borderline** - there is no clear cut consensus between the radiologist to place the hip into a given category of normal or dysplastic. There is usually more incongruency present than what occurs in the minor amount found in a fair but there are no arthritic changes present that definitively diagnose the hip joint being dysplastic. There also may be a bony projection present on any of the areas of the hip anatomy illustrated above that can not accurately be assessed as being an abnormal arthritic change or as a normal anatomic variant for that individual

5. **Mild Canine Hip Dysplasia** - there is significant subluxation present where the hip ball is partially out of the hip socket causing an incongruent increased joint space. The hip socket is usually shallow only partially covering the hip ball. There are usually no arthritic changes present with this classification

6. **Moderate CHD** - there is significant subluxation present where the hip ball is barely seated into a shallow hip socket causing joint incongruency. There are secondary arthritic bone changes usually along the femoral neck and head (termed remodeling), acetabular rim changes (termed osteophytes or bone spurs) and various degrees of trabecular bone pattern changes called sclerosis. Once arthritis is reported, there is only continued progression of arthritis over time.

7. **Severe CHD** - assigned where radiographic evidence of marked dysplasia exists. There is significant subluxation present where the hip ball is partly or completely out of a shallow hip socket. Like moderate CHD, there are also large amounts of secondary arthritic bone changes along the femoral neck and head, acetabular rim changes and large amounts of abnormal bone pattern changes.