Hearing Problems

Hereditary Conditions:

Unilateral and Bilateral deafness

Mode if Inheritance:

Undetermined, but suspected polygenic recessive with incomplete penetrance. Unilaterally and bilaterally deaf dogs are considered to be equivalent genetically. There is a higher incidence of deafness in the offspring of affected animals.

Test:

BAER/P -- Brainstem Auditory Evoked Response/Potential

Test Results & Interpretation:

The BAER test detects electrical activity in the auditory pathway in response to specific stimuli applied to one ear at a time. Per Dr. George Strain: "An objective yes or no assessment of hearing is reasonably straight forward." Both ears are tested separately. Diagnosis of normal bilateral hearing, unilateral (right or left) deafness can be made based on the data. (A list of BAER testing facilities is published regularly in BARKS."

Recommended Screening Age & Frequency:

BAER testing may be done on puppies as early as five weeks of age. Only one test should be needed for verification of hearing status.

Owner Concerns:

Test is not painful to the dog. Some testers, however, feel that tranquilization or general anesthesia is necessary to be sure that the dog is perfectly still during the test. Testing on awake dogs can be done anywhere; anesthesia is generally done in a veterinary clinic. Deafness from injury, infection or old age give different results from hereditary deafness.

Kidney Problems

Hereditary Conditions:

Hereditary Nephritis

Renal Dysplasia

Polycystic Kidney Disease (possibly)

Mode of Inheritance:

Undetermined. Australian research on hereditary nephritis suspects it is caused by an autosomal dominant. More data is needed. There is a higher incidence in the offspring of affected animals. There is a variability in the age of onset and progression of the disease.. It is invariably fatal.

Test:

UP:UC Ratio -- Urine Protein: Urine Creatinine Ratio

This test evaluates the level of protein in the urine, a sensitive indicator of kidney disease. Most laboratories run this test, though not all veterinarians are familiar with it. The test should be carried out on a "mid-stream free catch" sample of urine and should be run concurrently with a standard urinalysis.

Test Results & Interpretation:

Most authorities accept a ratio of less than 1.0 as normal. Elevated values should be evaluated more specifically. Non-kidney sources of elevated protein must be ruled out and persistent proteinuria established by retesting in one to three months. An animal with kidney-source persistent proteinuria may require ultrasound guided biopsy for a definitive diagnosis. These animals should not be bred from, but can be treated to maintain their kidney function -- for a time.

Recommended Screening Age & Frequency:

Dogs and bitches used for breeding should be checked every six months, or at least yearly. The interval between evidence of proteinuria and full blown renal failure is unknown

Owner Concerns:

The UP:UC test is only a screening or "sentinel" test on a "free-catch" urine sample to find indication of kidney malfunction. There are a number of problems causing elevated protein in urine. Other more specific tests, some requiring hospitalization, are needed to pinpoint precise diagnosis in some instances.

Dogs sicken and die of kidney disease because they cannot clear poisons or retain vital body substances properly. As the disease gets worse, treatment becomes progressively more costly and more unpleasant for both dog and owner.

Patella Problems

Hereditary Condition:

Patella Luxation

Mode of Inheritance:

Undetermined, suspected polygenic, possibly recessive.

Test:

Palpation of patellas by a veterinarian.

Test Results & Interpretation: (based on OFA standards)

*Grade 1 - intermittent, limb carried occasionally, patella easily luxates at full extension of the stifle joint, but returns to position when released.

*Grade 2 - frequent luxation, which in some cases, becomes more or less permanent. The limb is sometimes carried. Weight bearing routinely occurs with stifle remaining slightly flexed.

*Grade 3 - permanent luxation with torsion of the tibia and deviation of the tibial crest. Animal may use the limb with stifle semi-flexed.

*Grade 4 - permanent luxation (resulting from trauma). The limb is carried or the animal moves in a crouched position with the limb partly flexed.

Recommended Screening Age & Frequency:

OFA will certify at 12 months, "but the breed registry number will contain the age of evaluation and it is recommended that the dogs be periodically re-examined as some luxations will not occur until later in life." Yearly testing of patellas is recommended; they can be checked during a regular office visit, which renders yearly evaluation practical as well as highly desirable. Animals should be tested before breeding.

Owner Concerns:

Feeling the stifle for the location and looseness of the "knee-cap" is a skill. A veterinarian regularly conducting such examinations can usually be very specific about the absence, presence and degree of dislocating knee-cap. The test may cause some discomfort to puppies, as the hind legs must be held tightly in specific positions for evaluation. Grades 2 - 4 can involve discomfort and disability for he dog. Grades 2 - 4 can be treated surgically.

Heart Diseases

Hereditary Conditions:

Aortic Stenosis

Mitral Stenosis

Ventricular Septal Defects

Dilated Cardiomyopathy (suspected)

Hypertrophic Cardiomyopathy (suspected)

Mode of Inheritance:

Complex; assumed to be polygenic.

Tests (based on OFA guidelines):

*Ascultation by a veterinarian with expertise in cardiology or board certified cardiologist.

*Echocardiogram including Doppler studies.

Interpretation of Test Results: (based on OFA guidelines)

A phenotypically normal dog is:

1. one without a cardiac murmur, or
2. one with an innocent cardiac murmur that is found to be otherwise normal by virtue of an echocardiograph, including Doppler studies.

Recommended Screening Age & Frequency: (based on OFA guidelines)

*OFA requires a minimum age of one year for certification and recommends that testing be done on a "mature" animal.

*Breeding animals should be checked before breeding and yearly thereafter. Some hereditary murmurs will be detected at a later age but generally by full maturity.

Owner Concerns:

Heart problems may give very little external warning of their presence until very late in their course, so testing of all breeding stock is a kindness well worth the

cost and trouble. Sedation may be required for the rambunctious, as a quiet resting patient is necessary for good reliable readings. Some atypical heart sounds can occur in healthy hearts. Specific diagnosis can require extensive testing and consultation.

Thyroid Problems

Hereditary Conditions:

Autoimmune Thyroiditis (Hashimoto's Disease)-

the most common cause of hypothyroidism

Mode of Inheritance:

Probably recessive.

Test:

Three results are obtained from tests on a single blood sample:

*Canine Thyroid Stimulating Hormone (cTSH)

*Free T4 (FT4D)

*Lothyroglobulin autoantibodies (TgAA)

Interpretation of Test Results:

*Normal

*Autoimmune Thyroiditis

*Idiopathic Hypothyroidism

*Equivocal - repeat in 3 to 6 months

Recommended Screening Age & Frequency: (based on OFA guidelines)

Annual testing for the first four years or testing at ages 2, 3, 4, 6 and 8 years. Animals should be tested before breeding.

Owner Concerns:

An obese, scruffy couch-potato doesn't necessarily have thyroid problems; it may just be over-fed and under exercised. However, in a well-kept dog these signs,

especially before 8 years of age should be investigated. It's no fun feeling tired and bloated all the time. A single blood sample provides the necessary test material