Autoimmune thyroiditis is the most common cause of primary hypothyroidism in dogs. The disease has variable onset but tends to clinically manifest itself at 2 to 5 years of age. Dogs may be clinically normal for years, only to become hypothyroid later. The marker for autoimmune thyroiditis, thyroglobulin autoantibody (TGAA) formation, usually occurs prior to the occurrence of clinical signs. Therefore, periodic retesting is recommended.

Most dogs that develop autoantibodies have them by 3 to 4 years of age. Development of autoantibodies to any time in the dog’s life is an indication that the dog, most likely, has the genetic form of the disease. Using today’s technology only a small fraction of false positive tests occurs.

As a result of the variable onset of the presence of autoantibodies, periodic testing will be necessary. Dogs that are negative at 1 year of age may become positive at 6 years of age. Dogs should be tested every year or two to be certain they have not developed the condition. Since most affected dogs will have autoantibodies by 4 years of age annual testing for the first 4 years is recommended. After that, testing every other year should suffice. Unfortunately, a negative at any one time will not guarantee that the dog will not develop thyroiditis.

The registry data can be used by breeders in determining which dogs are best for their breeding program. Knowing the status of the dog and the status of the dog’s lineage, breeders and genetic counselors can decide which matings are most appropriate for reducing the incidence of autoimmune thyroiditis in the offspring.

Dogs should not receive any type of thyroid supplementation for 3 months prior to thyroid testing.

**OFA Thyroid Procedures**

**Purpose**
To identify those dogs that are phenotypically normal for breeding programs and to gather data on the genetic disease autoimmune thyroiditis

**Examination and Classification**
Each dog must be examined by a veterinarian and have a serum sample sent to UC Davis VMTH Clinical Diagnostic Laboratories for testing according to the application and general information instructions. All OFA forms and the OFA fee are submitted with the sample.

**Certification**
An OFA number will be issued to all dogs found to be normal at 12 months of age. Ages will be used in the certification process since the classification can change as the dog ages and the autoimmune disease progresses. It is recommended that reexamination occur at ages 2, 3, 4, 6, and 8 years.

**Preliminary Evaluation**
Evaluation of dogs under 12 months of age can be performed for private use of the owner since the few dogs are already positive at that age. However, certification will not be possible at that age.

**Dogs with Autoimmune Thyroiditis**
All data, whether normal or abnormal is to be submitted for purposes of completeness. There is no OFA fee for entering an abnormal evaluation of the thyroid into the database. Information on results determined to be positive or equivocal will not be made public without explicit written permission of the owner.
Thyroid abnormalities
Thyroid abnormalities fall into several categories — two types will be defined by the registry.

- Autoimmune Thyroiditis (known to be heritable)
- Idiopathically Reduced Thyroid Function

Equivocal Results
Those dogs with laboratory results that are questionable, therefore not definitive, will be considered as equivocal. It is recommended that the test be repeated in three to six months.

Thyroid Sample Submission Guidelines

- The veterinarian or owner must obtain the Application for Thyroid Database.
- The veterinarian and owner must complete their respective portions of the form.
- A check payable to the OFA and the completed OFA form must accompany the specimen. (Credit card may be provided in lieu of a check.)
- The veterinarian should request the “OFA Thyroid Panel.”
- Two milliliters (2mL) of serum are needed for testing. The serum sample must be from freshly collected blood. Use a plain “red-top” tube for blood collection. Do not use a serum separator tube with clot additives or any other type of plasma collection tube. After collection, place the blood sample in the refrigerator for 60 to 90 minutes to allow clotting. Centrifuge, collect the serum, and transfer to a plain plastic or glass tube suitable for shipping. Clearly label the sample with the owner’s name, animal’s identification, date of blood collections, and “OFA Thyroid Panel.” If the specimen is to be stored for more than 12 hours prior to shipping, frozen storage is recommended.
- Ship to the chosen lab address via FedEx overnight. It is recommended that all specimens be packaged properly and shipped so they are received either chilled or frozen. Serum samples arriving unchilled or at room temperature within 48 hours of the collection date will be accepted. However, samples arriving after this time must be received either chilled or frozen in order to be accepted for registry testing. Contact the laboratory if you have any questions or further instructions are needed.
- Please do not submit whole blood, clotted blood, or plasma.
- Severely lipemic or hemolyzed specimens are also unacceptable.
- Female dogs should not be tested during an estrus cycle.
- The date of last routine vaccination should be noted on the OFA application.
- Test results will be mailed or faxed only to the submitting veterinarian and the OFA. Results will not be available from the laboratory by telephone. The OFA will send a report to the owner.

Send sample(s) to:
Central Lab Receiving, VMTH Room 1033
Attn: Chemistry
One Garrod Drive
University of California, Davis
Davis, CA  95616

Contact Information:
Central Lab Receiving
(530) 752-8684
UCDVetClinicalLabs@ucdavis.edu

Website:
www.vetmed.ucdavis.edu/clinical-laboratory

Please Include an OFA Thyroid VMTH submission form and an OFA Application for Thyroid Database form when requesting this test.