

“Blood, Sweat and Cheers!” A Win-Win Opportunity for Keeshond Owners!

Purebred Keeshond owners have a great opportunity to contribute to research that will improve diagnostic testing for hypothyroidism in Keeshond dogs. We have a chance to collect important laboratory data for our individual animals and contribute to a study which may affect the way hypothyroidism is diagnosed in our breed. Don't miss your chance to participate!

The Keeshond Club of America has joined with the AKC Canine Health Foundation and OFA to fund a study to determine breed-specific reference intervals for thyroid hormone concentrations in samples from healthy pure-bred dogs. Rebecca Davies, PhD, from the University of Minnesota Veterinary Diagnostic Laboratory is conducting the study which includes several breeds (Collies, English Setters, Golden Retrievers, Alaskan Malamutes, Siberian Huskies and Samoyeds are also being investigated). Dr. Davies is ready to tackle the Keeshond breed and is looking for volunteers.

Hypothyroidism is caused by an inability of the thyroid gland to produce enough thyroid hormones. Thyroid hormones regulate the metabolism of the entire body. Veterinarians diagnose hypothyroidism by requesting measurement of the concentration of thyroid hormones in serum. These values are then compared to a reference interval derived from tests done on samples taken from groups of normal dogs, generally without regard to breed. In some breeds (Greyhound, for instance), normal, healthy dogs have thyroid hormone concentrations that do not 'fit' with the general thyroid hormone reference intervals. This may result in dogs being incorrectly classified as hypothyroid, and perhaps inappropriately put on thyroid medication and/or removed from breeding programs. Dr. Davies' study will determine Keeshond-specific reference intervals for thyroid hormones using serum from purebred Keeshonden which have been clinically screened to affirm their healthy status. Data from this study will then be available for comparison when Keeshond dogs need thyroid diagnostics as part of their health care. Data will also be compared to that found in the other breeds to determine if significant differences in thyroid hormone reference intervals exist among breeds.

So how can you get involved? Consider helping to supply the **blood** (and urine) samples needed. Enroll your Keeshond in this study. Dr. Davies needs healthy Keeshonden between 1 and 8 years of age for this study. Dogs can be on heartworm and flea and tick medication but cannot be on other drugs. Dogs must be off any drug therapy (eye or ear drops, antibiotics, steroids etc) for at least 12 weeks prior to enrolling in the study. Dogs with chronic health concerns should not be enrolled. Dogs previously diagnosed with thyroid problems or that show signs of thyroid problems (obesity, lethargy, poor hair coat, infertility) are not eligible to participate. Please do not enroll animals that you are 'suspicious' may have 'thyroid issues'. *The appropriate dogs are those that you are most convinced are healthy, fit, and robust animals.* In order to participate dogs must be:

- Between 1 and 8 years of age
- Healthy (no medications)
- AKC registered, or provide evidence of pure-bred status
- Females should not be pregnant or in season

Animals must be fasted for at least 6 hours prior to sampling

Now, for the **sweat** portion of this opportunity! In order to participate outside of the Minnesota metro area (free sampling clinics are available at the University of Minnesota for local dog owners) owners must arrange with their veterinarian for proper sample collection and physical exam of their dog. A limited number of enrollees will be accepted (up to 100 dogs are needed). If your veterinarian donates his or her time to help you participate in this study (**Cheers!**), please let Dr. Davies know. At the end of the study, all participating veterinarians that donated their services will receive a letter of thanks and a summary of the results when available.

Participating dogs will undergo a physical examination and donate urine and blood (for a complete blood count (CBC), blood chemistry profile, urinalysis, and thyroid levels) samples for the study. Dog owners must pay the fees (**Sweat**) associated with physical exam and sample collection. Dr. Davies will pay for shipping the samples to her laboratory. Dogs will be screened for healthy attributes using the results of the physical exam and the initial blood tests (CBC, chemistry profile, and urinalysis). If data are consistent with a healthy status, the thyroid panel (T4, Free T4 by dialysis, TgAA and TSH) of tests will be determined. Results of all tests which are run (screening only, or screening + thyroid tests) will be reported to the owner (**Cheers!**). The University of Minnesota Endocrine Lab, directed by Dr. Davies, is an OFA approved laboratory. Therefore, owners may also choose to have the thyroid levels done and reported to OFA. OFA has graciously waived the thyroid registration fee (**Cheers!**). If the dog is not chosen for the thyroid part of the study, the owner may request having the thyroid levels run at the owner's expense. When you volunteer for this project, you will receive a comprehensive health screening of your dog at no cost to you. More importantly, you will have the pride in knowing that you have participated in an opportunity to improve the health management of this super breed (**Cheers!**).

To participate:

- 1. Please contact Dr. Davies (rdavies @umn.edu or 612-626-0168) and request a “Blood, Sweat and Cheers” packet** in order to participate in the AKC/CHF/OFA University of Minnesota Thyroid Project. The packet will contain:
 - a. A health questionnaire that needs to be completely filled out and returned with the blood and urine samples.
 - b. A client consent form which needs to be signed and returned with the study samples.
 - c. A letter to your veterinarian which describes the study and requirements for the physical exam and sample collections.
 - d. A frequently asked question form to provide additional information.
- 2. Discuss the study and requirements with your veterinarian and schedule an appointment for a Monday, Tuesday or Wednesday** (to allow for over-night delivery to Minnesota laboratories prior to Friday). Once the appointment is made, notify Dr. Davies (rdavies @umn.edu or 612-626-0168) so that she can officially enroll your dog into the study. Dr. Davies will need to discuss the collection with your veterinarian by

email prior to final enrollment and sample submission. Sample collection and shipping timing are critical to sample acceptance so it is important to have all three parties (owner, veterinarian and Dr. Davies) in communication regarding dog enrollment.

Samples that are received without going through the enrollment procedure cannot be analyzed. This project is supported by the American Kennel Club Canine Health Foundation and the Orthopedic Foundation For Animals.