



Herd the News
 Newsletter of North Star Herding Group Club



Volume 11
Issue 1

January 2010

MESSAGE FROM THE PRESIDENT

"In order to really enjoy a dog, one doesn't merely try to train him to be semi-human. The point of it is to open oneself to the possibility of becoming partly a dog."
 Edward Hoagland

There was no membership meeting in December, as voted on at the October membership meeting. Our next meeting will be the annual meeting, to be held in conjunction with our Awards Banquet and Holiday Party January 17, 2010. Even if you do not come for the party, you can come to the Annual Meeting, which will start at about 2:00, Gulden's 61 Restaurant, 2999 Highway 61 N, Maplewood. Please find a preliminary agenda in this newsletter. January 5th is the closing date for Banquet reservations, so if you want to come and haven't sent in your reservation, contact Vicky Peterson at 651-747-1331 immediately. I look forward to seeing many of you there.

Also coming up in January, we'll have our Specialty show at the River Center, Friday January 8, and our obedience trial at Hugo, January 30, 31, 2010. Ann Mackay is Show Chair and Karin Andreen and Dawn Fisher are co-chairs for the trials. Please contact them if you have questions or wish to help at these events. I know there will be lots of brags in the next newsletter!

We are in need of a Club Historian. Please contact me if you are interested in serving in this way, or in any other capacity.

It's the time of year to **renew your membership** in the NSHGC. Please complete the form in the newsletter and mail it off to Patti Kleven, if you haven't done so already.

Are you fresh out of ideas for New Year's Resolutions? How about committing to regular involvement in the NSHGC? We value your participation. We want to keep this a member-run club, and you can help keep it that way!

I want to thank all of those who agreed to step into officer and board member roles for 2010, and the Nominating Committee (Bev Capstick, Rebecca Hardwick and Jean Kubic), who worked hard to get every slot filled. I will continue to serve on the board as past president, and plan to continue to be actively involved in the club. It has been a great pleasure to serve as your president the past two years. This is a wonderful organization, with lots of talented and hard-working members, who make leadership fun and rewarding. In February, I expect to turn the figurative gavel over to the very capable hands of Ann MacKay and the new officers. I feel certain Ann will carry us forward with fresh, new ideas.

Louanne Brooks
President

In This Issue:

- Presidents Message
- NSHGC Announcements
- 2010 Officer/Board nominees
- Guidelines for charities
- Club Information
- Annual Meeting Forms
- Hypothyroidism
- All Star tournament info

Newsletter deadline:

12 pm = 3rd of each month closing date, of the 3rdth of each month -12PM, Anything after that date will not be included until the following month. **NO exceptions.** March 2006: Advertising rates will apply to all notices published in the newsletter, excluding "Member Brags" section.

Newsletter Ad Rates:

- Club Members:
- Full page = \$25.00
- 1/2 page = \$15.00
- 1/4 page = \$10.00
- Want ad = \$5.00
- Want ad = 1/8 page.
- Full page is one side only.
- **Non members add \$5.00

Newsletter Editor

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Minneapolis, MN 55407

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Cottage Grove MN 55016

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HAPPY NEW YEAR from NSHGC



NSHGC's Obedience and Rally Trials are scheduled for January 30 & 31, 2010, at Total Recall in Hugo MN For 2010 we've decreased the Rally limit to 22, and raised the Open & Utility limits a bit (so if your Obedience entry didn't make in in last year, try again this year!). We're offering two Non-regular Obedience Classes on Saturday only - Pre-Novice and Team.

Looking for stewards for our Obedience & Rally Trials on January 30 & 31, held at Total Recall in Hugo. Please contact Dawn Fisher at (612) 824-7738 or kazinsmom@yahoo.com or Karin Andeen at (763) 913-5006 or ebonaire@hotmail.com, if you can help for any part of either day.

That time of Year again. Trophies donation for the Next yrs 2 shows .

Membership Dues are due

2010 Officers and Board nominees:

President: Anne MacKay Vice President: Bev Capstick Reporting Secretary: Dawn Fisher Membership Secretary: Patti Kleven Treasurer: John Petersen	2009-2011: Barb Zusan Lynnette Gandl Jean Kubic 2010-2012: Karin Andreen Barbara Stransky
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Guidelines for support of charitable-type donations.

In September and November an informal committee of interested members gathered to develop guidelines for support of charitable-type donations. Below is a description of the proposed program and options for selection of proposals and for program budget. A proposed proposal application is available for review.

The proposed program will be discussed at the General Membership meeting in January. If you have questions or comments prior to that meeting, please contact Louanne Brooks who will share them with the informal committee and respond as appropriate.

**Program Funding from the
North Star Herding Group Club (NSHGC)**

General Information

The North Star Herding Group Club (NSHGC) is an educational organization. We are organized to carry out the objectives of NCHGC, specifically:

- To encourage and promote quality in breeding and performance of all purebred herding breeds.
- To urge members and breeders to accept the standards approved by the American Kennel Club as the standard of excellence by which these herding breeds shall be judged.
- To do all in its power to protect and advance the interest of all herding breeds and to encourage sportsmanlike competition at dog shows, obedience trials, and performance events recognized by the American Kennel Club.
- To conduct sanctioned matches, dog shows, obedience trials, agility trials, herding tests/trials under the rules and regulations of the American Kennel Club.
- To provide educational programs and seminars for the dissemination of knowledge in regard to all herding breeds and purebred dogs in general.
- To promote cooperation and good sportsmanship among its members in exhibition and training of dogs.

This funding program is intended to provide support for educational, breed stewardship and sportsmanship objectives. Projects and programs to be considered might include but are not limited to public conferences, workshops, seminars, lectures, publications, fairs, youth events, community service and charitable goodwill.


Options for Implementation

Budget: at the end of the fiscal year, upon approval by the membership, dedicate funds over \$25,000 to be available for allocation, plus any special fundraising.

Application: an application will be available upon membership's approval of the process. approve recipients at the general membership meetings.

This proposal will be brought before the membership for discussion and approval will be requested at the January meeting.

Members Brags

<p>Natalie -AOM GrCh Mari's Miracle On 186th Street, TC, OFA-Chic, CGC, TDI. On Dec 2, 2009 "Natalie" passed her CGC(Canine Good Citizen) and TDI (Therapy Dogs International)Tests. She completed an 8 week beginner obedience class and a 6 week Therapy Dog Classes, she passes both tests with a comment from Tim Peterson-the evaluator - Nice working team! owned/handled/bred by Kathy DuVall</p>	
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Members Brags: Please report your member's brags within 30 day of them happening.

Club Information

NSHGC Officers, Board, Contacts

President	Louanne Brooks	1-651-345-3749	hillhaven1@earthlink.net
Vice President	Anne MacKay	952-472-1257	ann@avonleamalinois.com
Reporting Secretary	Dawn Fisher	612-824-7738	kazinsmom@yahoo.com
Membership Secretary	Patti Kleven	651-458-0814	lismorecor@aol.com
Treasurer	John Petersen	952-541-0187	john.g.peterson@att.net
2008-2010	Karin Andreen	763-425-3236	Ebonaire@hotmail.com
	Barbara Stransky	651-436-8502	Stransky@Q.com
Board Position (past president)	Patti Kleven	651-458-0814	lismorecor@aol.com
2009-2011 Board	Bev Capstick	763-295-6206	avagator@tds.net
	Barb Zusan	651- 430-9156	barbzusan@comcast.net
	Lynnette Gandl	651-357-3738	lgandl@wandrlyn.com

2009 Committees:

FSS Breed Coordinator	John Peterson	952-541-0187	john.g.peterson@att.net
Agility Coordinator	Darci Wagner	952-941-8736	cdwagner@mn.rr.com
Obedience Coordinator	Karin Andreen	763-425-3236	ebonaire@hotmail.com
Herding Coordinator	Lynnette Gandl	651-357-3738	lgandl@wandrlyn.com
Ring Hospitality Coord.	Andrea Debbins	612-781-6130	adebbins@yahoo.com
Educational Coordinator	Linn Klingel	651-306-9091	linnkling@aol.com
Judges Selection Coord.	Steve Sorenson	715-834-9248	
Show Chair – January 2009	Anne MacKay	952-472-1257	ann@avonleamalinois.com
Show Chair - August 2009	Steve Sorenson	715-834-9248	
Historian			
Newsletter Editor - Web site Year end Awards	Jean Runge	507-695-2334	quaintkid@yourstarnet.net
Trophy Committee	Pat Jung		
	Maureen Behrens.		augbehrens@earthlink.net

No December Meeting
NSHGC Annual Meeting
2:00 pm January 17, 2010
Gulden's 61 Restaurant
2999 Highway 61 North
Maplewood, MN

2:00 Convene

Welcome and Thank You
President's 2009 Recap

Election of Officers and Board Members: (Nominating Committee: Dawn Fisher, Chair, Lynn Stoltzman, Jim Brooks, Garrett Ramsey)

President	Ann MacKay
Vice President	Bev Capstick
Recording Secretary	Dawn Fisher
Membership Secretary	Patti Kleven
Treasurer*	John Peterson
Lynnette Gandl	Board Member 2009-2011
Jean Kubic*	Board Member 2009-2011
Barb Zusan	Board Member 2009-2011
Karin Andreen	Board Member 2010-2012
Barbara Stransky	Board Member 2010-2012

2008-2010 Board Members: Karin Andreen, Barbara Stransky,
Past President: Louanne Brooks
* replacing Bev Capstick

Awards Presentation: (Awards Committee: Jean Runge, Chair)

Annual Awards
NSHGC Outstanding Contributors

Old Business

Jan. Specialty Recap
Jan. Obedience Trial
Donations Guidelines proposal

New Business

Adjourn



From *The Little Big Book of Dogs*, edited by Alice Wong and Lena Tabori
Submitted by Amelia Brooks

Five Crucial Food Groups According to Dogs:

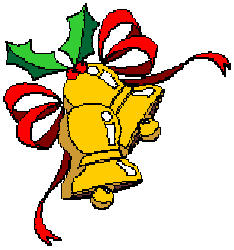
1. In the bowl. A good foundation, but important to supplement with other groups.
2. Off the table. Most varied group, but best eaten when no one is looking.
3. On the Floor. A nutritious way to snack between meals.
4. Grass. Taken at least once a day to enable vomit activity (vomit activity best engaged in while resting head on caretaker's lap).

Poop. At least once a day for overall digestive happiness. May be taken topically via rolling it. Be sure to lick owner in face after ingestion.

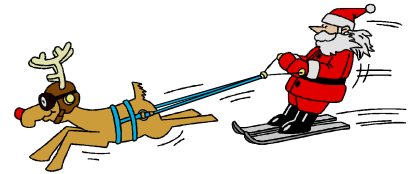
New Year's Resolutions for Dogs:

- Have a one-night stand with a street mutt.
- I will no longer be enslaved to the sound of the treat jar.
- Circulate petition that leg humping be a judged competition in major dog shows.
- Call PETA and tell them what that surgical mask-wearing freak does to us when no one is around.
- Take time from busy schedule to stop and smell the behinds.
- Always school my bottom before licking it.
- Grow opposable thumb; break into pantry; decide for MYSELF how much food is too much.
- Kill the sock! Must kill the sock.

I will not chase the darn stick unless I see it LEAVE HIS HAND.

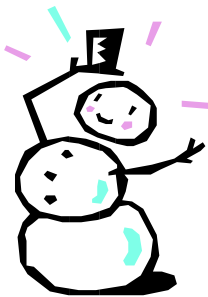


You're Invited!



**"NSHGC 10th Anniversary Holiday and Awards Party"
Annual Meeting**

<p>Sunday, January 17, 2010 11:00 am – 2:30 pm Buffet Meal \$17.00*</p>	<p>Gulden's 61 Restaurant 2999 Highway 61 N. Maplewood, MN</p>
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- Buffet Menu
- Oven Roasted Turkey
 - Sliced Roast Beef
 - Mashed Potatoes & Gravy
 - Fresh Vegetables
 - Dinner Rolls & Butter
 - Lettuce Salad
 - Pasta Salad
 - Coffee

Gulden's is located south of 694 and north of Beam Ave. on the west side of Highway 61 N. Remember to bring a wrapped White Elephant Gift for the Gift Exchange. We will have a silent auction to support the Junior's Program, so please bring something to donate.

* If you worked at least 5 hours for the NSHGC this year, you are eligible for "\$5 for 5" (\$5 off the price of your meal = your meal cost will be \$11.00). Please document on the Reservation Form below.

If you wish to attend only the Annual Meeting at 2:00, there is no charge.

NSHGC Holiday and Awards Party Reservation Form
Send by January 5, 2009 to:
Vicky Peterson
2621 Aspen Court
White Bear Lake, MN 55110
(651) 747-1331

Name(s) _____
Number attending _____ Phone Number _____

\$5 for 5: I (we) worked at least 5 hours each for the club this year. Please document who, which event, what you did and hours worked _____

Amount enclosed _____ (make checks payable to NSHGC)

NORTH STAR HERDING GROUP CLUB

Membership Application

Membership applications will not be accepted with incomplete information. Dues for the year must accompany the application. Applicants under 18 years of age must have parent's signature on application.

Name: _____ Date: _____

Address: _____ City: _____

State: _____ Zip: _____ Telephone: _____ Fax: _____

Email: _____

Breed or Breeds owned: _____

Check all areas that apply: (AKC events in past 2 years)

Exhibitor: Conformation, Obedience, Agility, Herding, Other: _____

Breeder: Indicate number of litters whelped within the past **THREE** years: _____

Judge: Conformation, Obedience, Agility, Herding, Other: _____

Instructor: Conformation, Obedience, Agility, Herding, Other: _____

INrested dog owner

Areas of interest and committees on which you would like to serve:

Conformation	Show/Trial/Match Organization	Community Service
Herding	Trophies and Awards	Publicity
Agility	Fund Raising Activities	Social Events
Obedience	Educational Programs	Hospitality
Rally	Breed Referral	Others: _____

Do you have any special skills or talents that may be of benefit to the club? (Photographer, artist, writer, computer skills, etc.)

If so, please list: _____

I/we, the above –named, do hereby apply for membership in the North Star Herding Group Club (N.SHGC) and have enclosed dues for the year _____. I/we agree to abide by the Constitution and By-Laws of the NSHGC and the American Kennel Club.

Dues: Individual \$15.00, Family \$25.00, Junior \$5.00, Associate (non-voting) \$10.00

I wish to receive my newsletter by e-mail to the address listed above.

(You will not receive a paper copy of the newsletter if you make this selection)

Signature: _____ Signature: _____

Sponsor: _____ Sponsor: _____

Print application, sign and submit to the address below with membership dues. Do not mail cash. Submitted applications will be read to the general membership and the name of the applicant and sponsors published in the next newsletter. One sponsor must be present at the meeting this application is to be voted upon.

**Submit completed application and dues to:
Patti Kleven, Corresponding Secretary
8619 Jenner Lane, Cottage Grove, MN 55016**

Date received: _____ Dues Paid: \$ _____ 1st Reading: _____ Published: _____

Date of vote: _____ Action: _____ Accepted: _____ Denied _____ Notification Date: _____

Hypothyroidism

by John Cargill MA, MBA, MS and Susan Thorpe Vargas MS, Ph.D. 2005

Hypothyroidism is a common and serious genetic problem in purebred dogs. There is virtually no breed of dog unaffected. The scope of the problem cannot be accurately defined because of a lack of complete statistical information; however, it is certain that veterinarians are seeing and treating a lot of thyroid cases. Because of a degree of inheritance associated with hypothyroidism (too little) genetic screening has become a necessity for the conscientious breeder, rather than an option. First, let's get a handle on the thyroid gland; what it is and what it does.

Systems Concept

Think of the thyroid gland as the crystal that sets the clock speed on your computer. If it produces too much or too little, the body system may malfunction because the various interconnecting subsystems can't interface properly. Together with the pituitary gland, the thyroid gland "calls cadence" for the many interconnected systems of the body, serving much like a combination thermostat, rpm governor, pressure regulator in mechanical systems.

Because the thyroid gland plays such a large role in regulation of the body, any disturbances in the thyroid system can cause serious problems in many of the body's other subsystems. The telephone company analogy of thyroid functions is a good one: while the telephone switching central neither originates calls or receives calls, it schedules and directs traffic flow interfacing cable, microwave and satellite transmissions. It matters not how well your individual telephone and telephone lines are working, or how well those of the person to whom you would speak are working, if there is a problem with the telephone central.

Built into the body are many self compensating properties or control mechanisms. Using the telephone company analogy, if a satellite fails, message traffic may be routed through other systems such as land lines and microwave radio or through other satellites. Each of these systems has a capacity and a rate of throughput, and variable degrees of interface with other systems. Even when the telephone central loses some of its capacity to function, message traffic can be rescheduled to off-peak hours. Similarly, when the thyroid system loses some of its function, other systems and subsystems may function, but at reduced levels of efficiency and operating tempo. In the case of a reduced capacity telephone central operating off of standby generator power, the whole system becomes vulnerable to other insults such as terrorism, floods, electrical storms and computer malfunction. The telephone switching central then has less ability to compensate for these problems and to self repair or direct repairs in subsystems in a timely manner. And so it is also with the thyroid system, because, in great part, it influences the immune system of the body.

As the immune system becomes depressed or compromised, the whole body system becomes more and more vulnerable to the insults characteristic of every day living, and the body system as a whole becomes less competent to respond to those insults. In fact, if the malfunctions are of a particular type, various subsystems of the body may refuse to recognize other subsystems as "self" and will even attack those other subsystems, much as the security force of a telephone switching central may refuse to allow repairmen in to fix the telephone switching central computers because the

computer that contained the approved repair personnel access list had its hard drive crash.

Thyroid Gland

Now let's get directly to the thyroid gland and examine its properties and functions keeping in mind the above analogies as a framework for understanding. In the dog, the thyroid gland consists of two lobes flanking the trachea (windpipe). It has been established that it secretes at least two related hormones thyroxin (T4) and triiodothyronine (T3). The only difference between the two is that T4 has four iodine atoms attached to it and T3 only has three. Even though the thyroid gland secretes mostly T4 (about 90%), it is T3 that is considered the active form of the hormone.

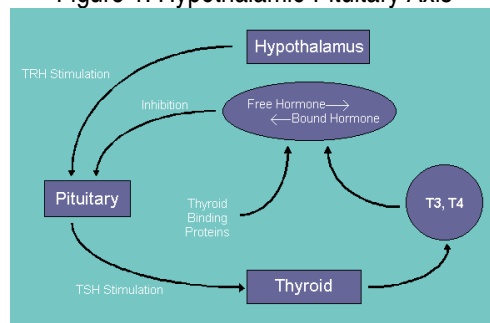
Conversion of T4 to T3

In a series of complex steps that involve mainly the liver and kidneys, T4 is stripped of an iodine atom and is converted to T3 when needed. Initially, the two forms are released into the blood and are bound to proteins in the plasma (the clear fluid of the blood). Less than 1% of the T3 and less than 0.1% of T4 remain in the unbound state in the blood. One of the thyroid tests commonly ordered checks for the amount of circulating or 'free' T4 and 'free' T3. The bound thyroid hormone is transported by the blood to their target cells. Only unbound or 'free' hormone is able to enter cells. Once they pass through the cell membrane they bind again to another protein. This attachment process signals a receptor within the cell nucleus and activates the synthesis of various metabolic enzymes. These enzymes are what regulate the body's 'set point' or 'idling speed'. This basal metabolic rate governs the body's rate of oxygen consumption and energy expenditure, which in turn effects heat production. This is why we use up energy keeping warm and why hypothyroid individuals are cold intolerant.

Control Mechanism

Internal modulation of hormone levels is a complex process in that thyroid hormones are not secreted at a continuous rate, but rather demonstrates the classical physiological example of negative feedback. One can liken negative feedback to a heating thermostat. Once levels of free circulating thyroid hormone have fallen to a certain plasma concentration, thyroid-releasing hormone (TRH) is secreted by the hypothalamus. TRH in turn stimulates the release of thyroid stimulating hormone (TSH) from the anterior pituitary, which 'turns on' the synthesis of thyroid hormone. (See [Figure 1.](#)) Another function of TSH is to maintain the structural integrity of the thyroid gland. Inadequate levels of TSH cause the thyroid gland to atrophy. This is one reason why early diagnosis and intervention of thyroid disorders is so necessary. Once the thyroid gland has atrophied, it cannot recover. Secretion of TSH is 'turned off' when plasma concentrations of thyroid hormone are sufficient and is turned back on again when levels fall once more.

Figure 1. Hypothalamic-Pituitary Axis



Regulation of thyroid hormone levels is accomplished through a negative feedback mechanism involving the hypothalamus gland secreting TRH which in turn stimulates the pituitary gland to secrete TSH which stimulates the thyroid gland to produce T3 and T4 thyroid hormones. The amounts of unbound thyroid hormone further regulate the process by affecting the levels of TSH secreted by the pituitary.

Clinical Signs

Clinical signs of the disease vary greatly because of the myriad of systems the thyroid hormone impacts. Most owners are alerted to a problem when changes in the dog's coat occur. This is frequently the first symptom of which they become aware. The classical signs include alopecia or hair loss on both sides of the trunk or specifically on the tail, i.e., the 'rat' tail. Hair regrowth is usually slow and may come in dry, dull or differently colored. The skin may also change color and become greasy, strong smelling and thickened. The dog may gain weight easily, becoming lethargic, mentally dull and exercise intolerant. Chronic ear infections have also been noted. Observed also are severe behavior changes and neurological symptoms including unprovoked aggression, head tilt, seizures, ataxia, circling and facial nerve paralysis. Additionally, reproductive functions such as prolonged anestrus and fertility rates may be affected. It is obvious from this list (see [Figure 2.](#)) that this is a serious disease and one that needs to be caught early.

Figure 2. Clinical Signs of Hypothyroidism

Figure 2. Clinical Signs of Hypothyroidism	
General Clinical Signs	Skin Problems
<ul style="list-style-type: none"> • Lethargy • Exercise Intolerance • Obesity • Mental dullness • Cold intolerance 	<ul style="list-style-type: none"> • Alopecia • "Rat" tail • Dry, brittle coat • Pigment changes in skin and coat • Seborrhea • Chronic otitis external • Skin thickening (myxedema) • Poor wound healing • Persistent infection (pyoderma)
Cardiovascular Signs	Eye Problems
<ul style="list-style-type: none"> • Abnormally low heart rate (bradycardia) • Cardiac arrhythmias 	<ul style="list-style-type: none"> • Fatty deposits of the cornea • Corneal ulceration • Uveitis
Vestibular Signs	Blood Disorders
<ul style="list-style-type: none"> • Circling 	<ul style="list-style-type: none"> • Anemia · Elevated cholesterol levels • Coagulation irregularities
Neurological Signs	Reproductive Functions
<ul style="list-style-type: none"> • Weakness • Knuckling • Seizures • Ataxia • Facial nerve paralysis 	<ul style="list-style-type: none"> • Cycle irregularities • Prolonged anestrus • Cycle cessation • Diminished libido • Low birth weights • Spontaneous Abortions • Excessive lactation (galactorrhea) • Testicular atrophy
Gastrointestinal Signs	
<ul style="list-style-type: none"> • Diarrhea • Constipation 	

Causes of Hypothyroidism

Two questions are particularly relevant to breeders: What causes canine thyroid disease? Is the incidence of hypothyroidism

increasing? Most cases of hypothyroidism are the endstage result of autoimmune thyroiditis. This is a condition where the immune system attacks the tissues of the thyroid gland. The body is able to compensate for this by stimulating the thyroid to secrete greater levels of hormone, but eventually glandular reserves are depleted and the individual is unable to produce enough hormone to sustain clinical health. One of the ways to assess this condition is to look for the presence of ant thyroid antibodies, specifically, thymoglobulin autoantibody (TgAA). An improved test for TgAA, made by Oxford Biomedical is now commercially available, and although not as yet a definitive diagnostic test, it is the best available marker for autoimmune thyroiditis at this time.

Although it is clear that there is a genetic predisposition for thyroid disorders we would also suggest that there are environmental factors like diet, nutrition, and exposure to chemical toxins, that at the very least will trigger the onset of disease in the genetically susceptible individual. We know that the body's capacity to maintain homeostasis when exposed to changes in it's environment depends in the way it able to detoxify itself. This ability responds in many complex ways to changes in the levels of thyroid hormone.

Environmental toxins, nutritional deficiencies and allergies are external factors that can effect our perception of the prevalence of thyroid disease. (See [Figure 3.](#))

Figure 3. Environmental Factors Affecting Thyroid Function		
Category	Found in	Effects
Pollutants		
• Thiocyanates	• Metal processing, foods such as walnuts, sorghum, cassava, almonds and apples	• Inhibit thyroid gland ability to concentrate iodine
• Phenolic compounds	• Plastic and wood processing, and glues	• Block conversion of T4 to T3
• Halogenated benzenes	• Mothballs, toilet deodorizers	• May induce toxic effect on the thyroid gland
• Chlorinated compounds	• Solvents, plastics, rubber processing	• Compete with thyroid hormone and/or plasma binding proteins responsible for transport
• Polychlorinated biphenyls		• Enhance biliary excretions of circulating T4
Nutrients		
• Selenium	• Vegetables, cereals, meats	• Activates the enzyme that catalyzes conversion of T4 to T3
• Iron	• Vegetables, cereals, meats	• Iron deficiencies lower thyroid function
• Allergens	• Soy, lactose, vegetables, cereals, meats	

Breed Specificity

Figure 4. Breeds Genetically Predisposed to Hypothyroidism		
<ul style="list-style-type: none"> • Afghan Hound • Airedale Terrier • Akita • Alaskan Malamute • American Cocker Spaniel • American Staffordshire Terrier • Australian Cattle Dog • Australian Shepherd • Basenji • Basset Hound • Beagle • Bearded Collie • Belgian Malinois • Belgian Sheepdog • Belgian Tervuren • Bernese Mountain Dog • Bloodhound • Borzoi • Boston Terrier • Bouvier de Flandres • Boxer • Briard • Brittany Spaniel • Bullmastiff • Cairn Terrier • Cavalier King Charles Spaniel • Chihuahua • Chinese Shar-pei • Chow Chow • Collie • Dalmation • Dandie Dinmont Terrier • Doberman Pinscher • English Bulldog 	<ul style="list-style-type: none"> • English Cocker Spaniel • English Setter • English Springer Spaniel • Field Spaniel • Flat-coated Retriever • German Shepherd Dog • German Short-haired Pointer • Giant Schnauzer • Golden Retriever • Gordon Setter • Great Dane • Great Pyrenees • Greyhound • Ibizan Hound • Irish Setter • Irish Water Spaniel • Irish Wolfhound • Keeshond • Kerry Blue Terrier • Komondor • Kuvasz • Labrador Retriever • Lakeland Terrier • Lhasa Apso • Maltese • Mastiff • Miniature Bull Terrier • Miniature Dachshund • Miniature Poodle • Miniature Schnauzer • Neapolitan Mastiff • Newfoundland • Norwegian Elkhound • Norwich Terrier 	<ul style="list-style-type: none"> • Nova Scotia Duck Tolling Retriever • Old English Sheepdog • Otter Hound • Pekingese • Pembroke Welsh Corgi • Pharaoh Hound • Pointer • Pomeranian • Portuguese Water Dog • Pug • Rhodesian Ridgeback • Rottweiler • St. Bernard • Saluki • Samoyed • Schipperke • Scottish Deerhound • Scottish Terrier • Sealyham Terrier • Shetland Sheepdog • Shih Tzu • Siberian Husky • Smooth Fox Terrier • Soft-Coated Wheaten Terrier • Standard Dachshund • Standard Manchester Terrier • Tibetan Mastiff • Toy Manchester Terrier • Toy Poodle • Vizsla • Weimaraner • Welsh Terrier • Whippet • Yorkshire Terrier

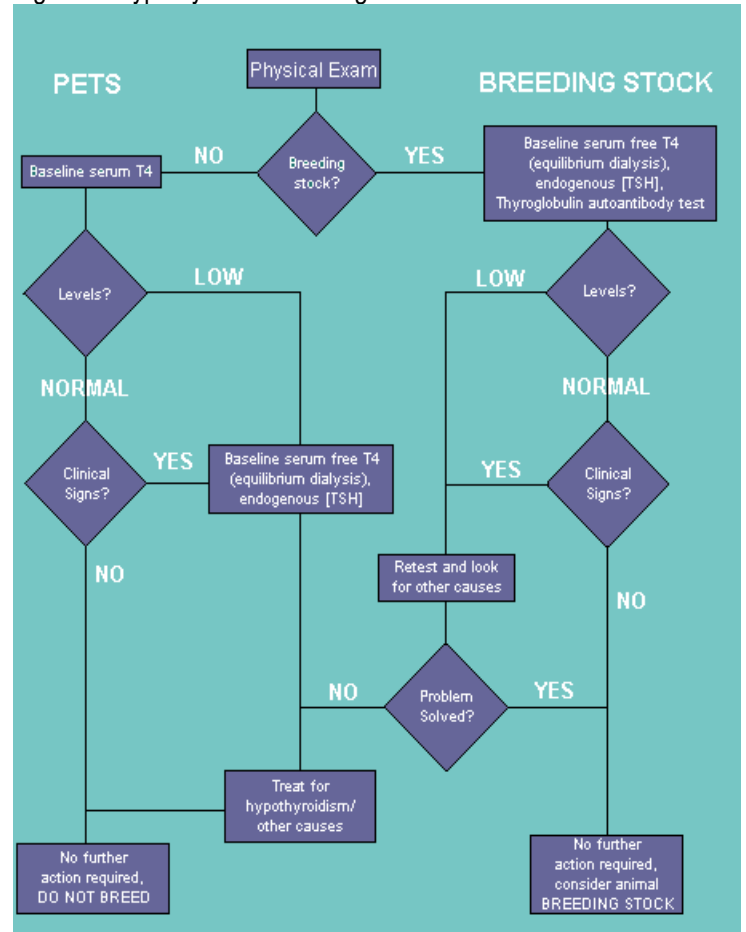
Taken from Canine Consumer Report: A Guide to Hereditary and Congenital Diseases in Dogs Published by The Association of Veterinarians for Animal Rights, P.O. Box 208, Davis, CA 95617-0208, Aug 1996.

Pets vs. Breeding Stock

One of the selection criteria for breeding stock is that they should be the animals best suited for perpetuating their breed. Herein lies the rub: what one fancier considers desirable in a given breed, another may consider a fault. What one fancier considers important, another may consider insignificant. But we can all agree that

healthy thyroid function deserves serious consideration when it comes to selecting breeding stock. Because of the perception that there is a widespread penetration of hypothyroidism into the overall gene pool of the dog fancy, we can probably all agree that normal thyroid function should be one of the breeding criteria. At a recent symposium held at the University of California Davis, it was decided that there should be two different testing protocols: One protocol for breeding stock and another, much less stringent and less expensive protocol, for the pet population. (See Figure 5.)

Figure 5. Hypothyroidism Testing and Treatment Protocol:



Because thyroiditis is the most common cause of hypothyroidism, and thyroglobulin autoantibody (TgAA) is the earliest indicator of autoimmune thyroiditis, it should be added to all thyroid profiles as soon as it becomes economically feasible. Unfortunately, because of the cost of the thyroglobulin autoantibody test, it is not recommended at this time for other than breeding stock. Free T4 and TSH testing is an inexpensive way to determine thyroid supplementation levels and should be used for pets with either clinical signs of hypothyroidism or low T4 test results. Here comes another rub: What constitutes this normal thyroid function? This question may be further refined by: What constitutes normal thyroid function in my breed? Unfortunately, breed specific norms of healthy thyroid function are not well documented; however, normal ranges for dogs in general are known. With the exception of the documented low thyroid levels in Greyhounds, the variances between breeds are not considered to be large; however, we cannot dismiss such variances out of hand. With that said, Figure 6. Shows the normal ranges for dogs in general.

Hormone	Concentration
Total Triiodothyronine (TT3)	1.0-2.5 nmol/L
Total Thyroxin (TT4)	15-40 nmol/L
Free Triiodothyronine (FT3)	2.8-6.5 pmol/L
Free Thyroxin (FT4)	12-33 pmol/L
Triiodothyronine Autoantibody (T3AA)	<10%
Thyroxin Autoantibody (T4AA)	<20%
Thyroid Stimulating Hormone (TSH)	0-0.4 ng/mL

Testing and Diagnosis

Testing for hypothyroidism is an area of much confusion and controversy among clinicians and researchers alike, in that affected dogs do not necessarily exhibit clinical signs of the disease. Concurrent nonthyroidal disease can cause lab results to be misleading. The age of the dog needs to be considered too. Concentrations are expected to decrease with age and may actually be above adult 'normal' levels in puppies. Moreover, steroidal drug therapy or the use of sulfa drugs can likewise influence thyroid panel results. Because so many factors can effect thyroid hormone levels, a meaningful diagnosis of thyroid disease must first begin with a thorough initial exam. This would include a history, a physical examination, and routine blood work. (Complete blood count, serum biochemistry panel, and urinalysis). If the dog shows clinical signs of the disease, a lab test that shows lower than normal values of T4 combined with elevated levels of TSH is pretty diagnostic for primary hypothyroidism (previously mentioned factors having been ruled out). (See Figure 7.) IDEXX Laboratories, Diagnostic Products Corporation, Chiron and Nichols Institute Diagnostics manufacture some of the commonly used T3, T4 and TSH tests. It should be noted that while many other manufacturers make such kits, most are not "referenced" or "convertible" for canines. Example: Diagnostic Products Corporation CoatACount Canine T3 and CoatACount Canine T4 are specifically referenced tests for canines.

Figure 7. Types of Hypothyroidism and their Related Blood Plasma Concentrations

aa	Plasma Concentrations			
	Type	Total T3	Total T4	TSH
	Normal Ranges	a	a	a
	Upper	2.5 nmol/L	40 nmol/L	0.4 ng/mL
	Lower	1.0 nmol/L	25 nmol/L	0.0 nmol/L
	Primary Hypothyroidism (Failure of the thyroid gland)	↓	↓	↑
	Secondary Hypothyroidism (Failure of the pituitary gland)	↓	↓	↓
	Tertiary Hypothyroidism (Failure of the hypothalamus gland)	↓	↓	↓
	Dietary Hypothyroidism (Lack of dietary iodine)	↓	↓	↑
	False Indications of Hypothyroidism (Lack of adequate calories)	↓	↔ ↑	↔ ↓

It is most likely that you would be testing an asymptomatic animal if you were considering the dog for your breeding program. Begin testing after the animal has reached sexual maturity and be sure your female is between heats. One year of age is a good place to start. The baseline panel for potential breeding stock would include serum 'free' T4 measured by equilibrium dialysis, existing TSH levels and a test for thyroglobulin autoantibodies. The "cutting edge" test for FT4 is manufactured by Nichols Institute Diagnostics. Do not assume that if these values are normal that you are 'home free' because possible development of thyroid disease has not been precluded. An annual exam and retesting is suggested for all possible breeding animals.

Treatment & Dosage

Once a diagnosis of hypothyroidism has been made, the normal treatment protocol is the use of a T4 (Lthyroxine) hormone supplement given twice a day. Soloxine" and Synthroid' manufacture some of the more commonly prescribed T4 supplements. Sometimes (very rarely) a dog may have a metabolic disorder that effects the biochemical pathway necessary to convert T4 to T3. In this case a small amount to T3 is also included, but only when used with proper veterinary supervision because T3 can be acutely toxic at the wrong dosage level. In fact, the veterinary T3 supplement is no longer available.

What response can you expect from treatment? You should see an increase in activity levels and mental acuity within the first week and some weight loss should be apparent by the end of the fourth week. Skin problems will start to clear up by the end of the sixth week, although shedding will increase sometimes, depending on the stage the dog is in, in its hair growth cycle. Concurrent nonthyroid illness will make modifications of normal treatment conventions necessary. For example, aged dogs or those with diabetes, heart problems or liver or kidney problems would be placed on a lower initial dose which would then be gradually increased. Dogs already on medications and those that have absorption problems effecting the uptake of the drug or how it is metabolized, would have to be very carefully monitored also. Every case must be handled on an individual basis. Response to thyroid therapy varies considerably between animals, and fixing a proper dosage level is more of an art than a science. If your dog is on thyroid replacement therapy, keep careful records and keep your veterinarian informed of changes in attitude, activity levels, appetite, and skin and coat condition. Once in the "ball park", dosage levels are refined through observing the animals responses to treatment. Genetic Screening Required

By now, it should be obvious just how serious, deleterious and undesirable thyroid problems can be. Both authors take a hard line approach at this point: If you have not tested your dogs for proper thyroid function, you have no business breeding them. Taking the hard line one step further, to breed hypothyroid or untested dogs is unconscionable, unethical and just plain wrongdoing. Without evil intent to mess up the gene pool of your breed, to conduct such breeding is ignorant, or worse yet, stupid if you have already been informed. Yet, we venture to guess that most breeding are without benefit of screening for thyroid function or other genetically transmittable disease. Please read this paragraph again. There are two camps in the dog fancy: the 'screeners'; and the 'no screeners'. After reading about the thyroid system, we hope to have convinced you that it not only makes medical sense to screen for proper

thyroid function, but that it also makes economic sense when you attempt to place puppies you have bred. More and more fanciers are becoming aware of hypothyroidism and the problems associated with it, and are starting to advertise not only that they have screened their animals, but also the actual thyroid levels measured. We anticipate this trend will continue to the betterment of the fancy. The authors wish to thank Dr. Ray Nachreiner of the Animal Health Diagnostic Laboratory of Michigan State University for his help in reviewing this article and the valuable discussions of Drs. R. Nachreiner, W.J. Dodds, D.L. Panciera and N.H. Dodman.

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Sept 2009: Oxford Labs has a home test kit for TGAA. They send you the kit in the mail and all you need is a few drops of blood from whichever dogs you want to test. Basically it is a piece of blood absorbent paper and you fill the little circles on the paper with blood, let it dry, then send it in an envelope to the lab. You can clip a toenail short or have the vet draw the blood for you. The best part: Cost is \$27 for one kit, \$130 for 6 kits, \$260 for twelve, plus 10 dollars shipping and handling.

Oxford labs website: www.oxfordlabs.com phone number: 1-800-266-9477 The test we need to ask for is VT 20, the TGAA test.



THE ALL STAR TOURNAMENT

The All Star Championships only happen every two years

When dog fanciers speak of obedience, agility or rally competition, most are referring to trials sanctioned by the various registries such as the American Kennel Club (AKC), the United States Dog Agility Association (USDAA), the Canadian Kennel Club (CKC), the United Kennel Club (UKC) and other, individual registries. However, there is also a long tradition of tournaments, events where handlers and their dogs, who compete in different registries and in different countries, can compete against one another.

The All Star Performance Dog Association (ASPDA) will be hosting its 7th All Star Obedience, Agility and Rally Championships on August 6, 7 and 8, 2010, in York, PA. This competition follows in the tradition of the Gaines obedience tournaments, which set the standard for over 20 years, but now includes agility and rally, too!

A tournament was then, and All Star remains now, a fabulous event, where competitors are treated like the fine sportswomen and men they are. After all, just qualifying for All Star means a team has demonstrated a high level of ability! All Star's entry fee includes a bag or small duffel, filled with goodies and a certificate of achievement and small medallion on a ribbon. All Star wants to make each and every competitor feel welcome. No titles are awarded, but those who have attended are justifiably proud of that achievement.

So, come out and try a tournament! The tournament tradition of offering high-level competition for all levels, from many different registries, continues. Remember, you do not have to only compete in AKC events to qualify. For more information, go to www.allstardogs.org See you there!

We hope to see a number of your members in York, PA in August 2010! It promises to be a very successful and exciting event!

Tom McGinlay - All Star 2010



Continued From *The Little Big Book of Dogs*

When Good Dogs Go and Crossbreed

Pointer + setter = Poinsetter, a traditional Christmas pet

Great Pyrenees + dachshund =Pyradachs, a puzzling breed

Pekingese + Lhasa apso =Peekasso, an abstract dog

Terrier + Bulldog =Terribull, a dog prone to awful mistakes

Malamute + Pointer =Moot point, owned by...oh, well, it doesn't matter anyway

Newfoundland+ Basset Hound =Newfound asset hound, a dog for financial advisors

Bull Terrier + Shih Tzu =Bullshitz, a gregarious but unreliable breed