

GRR Health

Thyroid Problems in Golden Retrievers

by Monique Lenczycki

One of GRR's early experiences with hypothyroidism was Brooke. When she arrived at GRR, we believed her to be an elderly female in very poor shape. She was extremely lethargic (she wanted to sleep all day), had a terribly brittle coat, was cranky with other dogs in her foster home, and could not walk many steps without stumbling in her hindquarters (initially we believed this to be from arthritis). Muscles showed wasting all over her body. After two weeks in care, Brooke wasn't getting any better and a quality of life decision was in order. Several GRR volunteers met her and saw what looked to be a senior dog with all kinds of problems, but the part that didn't add up was her eyes. They reminded us of a younger dog and the look in her eyes did not tell us she'd given up. GRR took Brooke back to the vet and asked for more answers—and a Geriatric blood profile revealed low thyroid values.

Hypothyroidism is a common problem for dogs but rarely occurs in cats. Hypothyroidism occurs when not enough thyroid hormone is produced. The thyroid gland has a number of different functions but is most well known for its role in regulating metabolism.

Goldens most commonly show signs of this disease between 4-10 years of age, although it is not unheard of for it to occur in younger dogs and even puppies. It occurs equally in both sexes, but spayed females appear to develop it more often than intact females.^{1,3}

Hypothyroidism causes a wide variety of symptoms. It is commonly suspected in dogs with weight gain or obesity. While this is a classic sign, only 60% of hypothyroid dogs will show this symptom.¹ Common symptoms of hypothyroidism in GR's include repeated ear infections, skin and coat abnormalities such as a poor, thin coat, dullness, wiry feel, loss of hair or excessive shedding, thickening of the skin,

Clinical Symptoms for all dogs ¹	% of Dogs Showing Symptoms
High blood cholesterol	80
Lethargy/mental dullness	70
Hair loss	65
Weight gain/obesity	60
Dry hair coat/excessive shedding	60
Anemia	50
Hyperpigmentation of the skin - very common in GR's	25
Cold intolerance	15
Slow heart rate	10

dandruff, oily skin, roughing of the skin, development of a "rat tail", increased skin infections, increased scratching and hyperpigmentation—a darkening of areas, or spots of skin. Other symptoms include personality changes (lethargy, fearfulness, aggression, hyperactivity) and seizures. The earlier the disease is detected, the fewer symptoms the dog will display. A study on various breeds of hypothyroid dogs revealed the following information on the variety and frequency of symptoms seen with the disease (see table above).¹

Hypothyroidism is easy to diagnose with blood tests that check the level of various thyroid hormones. Many dogs suffer from a low thyroid hormone level for years without treatment. If your dog has chronic recurrent skin or ear problems, s/he may be suffering from hypothyroidism.¹ The most common blood test is called the T4 test. With respect to the T4 test, a result in the 'normal range' is not enough to discount hypothyroidism. At GRR we have found that many dogs with symptoms and a "low normal" test result are hypothyroid and need to be medicated for this disease. Experts state the blood values should be in the upper 1/2 to 1/3 of the laboratory normal ranges to successfully rule out hypothyroidism. Lower levels are suspect and may well be indicative of the early stages of thyroid problems, especially in

dog families (like golden retrievers) known to have thyroid disease.

One of the nicest things about this disease is that it is easily treated and the majority of the symptoms resolve after treatment is started. It takes 4-6 weeks for the dog's body levels to normalize and symptoms disappear over the next few months. The coat abnormalities take the longest to correct.

Treatment consists of putting the dog on a twice daily dose of synthetic thyroid hormone called thyroxine (levothyroxine). There are brand names of this drug as well as generics. Some vets recommend using brand names such as Soloxine® (Daniels) and Synthroid® (Flint) for initial treatment, especially with smaller breeds.³ There is evidence that the brand name preparations work better than generics in smaller breeds. We have not seen specific evidence of this at GRR and have used both brand and generic thyroid medications for several years.


A dog is generally placed on a standard dose for his weight and blood samples are drawn to check his response with the dose then adjusted accordingly. Follow-up testing after initiating treatment is usually performed after four to eight weeks of therapy. The blood sample should be taken



4-6 hours after the morning dosage. Correct therapeutic ranges after treatment is begun should be at the top 1/3 to 25% above the upper limits of the lab reference ranges (except for geriatric dogs where mid-range is adequate). Dosage should be adjusted accordingly to achieve optimum therapeutic range.

Thyroid hormones should always be given twice daily to obtain the best response. It is now known that the half-life of T4 in the dog is about 10-12 hours (much shorter than in humans).³ Thus, about half of the hormone is used and eliminated from the body within 12 hours, so twice daily dosing provides the most consistent results. Dogs on thyroid therapy should be monitored with complete panels on a regular basis (every 6-12 months).³

Once the long term dosage is determined, the medicine can be purchased in bulk quantities (250-1000 pills) to make maintenance more cost effective. Once therapy is started the dog will need to be on treatment for the rest of its life.

Ironically the initial thyroid test on Brooke was not a low as you'd have expected in a dog that symptomatic. It was somewhere just below the test normal range. GRR decided we had nothing to lose by trying thyroid medication...and the results were far beyond what we hoped for. Within six weeks Brooke was bounding through the yard happily chasing balls with her foster family. The crankiness went away, her coat and attitude improved, muscle function began to rebuild in her hips and those eyes were brighter than ever. Today, at 6½, she romps on the beach and has a wonderful life with her loving Dad. 

¹*HYPOTHYROIDISM*, Joe Bodewes, DVM
Veterinary Services Department, Drs. Foster & Smith, Inc
http://www.peteducation.com/article_print.cfm?cls=2&articleid=449

²*BEHAVIORAL CHANGES ASSOCIATED WITH THYROID DYSFUNCTION IN DOGS*, W. Jean Dodds, DVM and Linda P. Aronson, DVM
<http://www.canine-epilepsy-guardian-angels.com/behaviorandthyroid.htm>

³*AUTOIMMUNE THYROID DISEASE: COMMON PROBLEM OF PUREBRED DOGS*, W. Jean Dodds, DVM
<http://www.canine-epilepsy-guardian-angels.com/ThyroidDisease.htm>

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