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Dog Tips

Why Do So Many Vets Fail to Catch This Disease Early?

Too many veterinarians wait for the classic symptoms, which don't show up till late in the game. Or, they wait for full-blown disease to occur. Catching this condition early could allow you to bypass lifelong treatment. Here's the discussion to have with your vet.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Hypothyroidism in dogs is a condition in which the thyroid is unable to produce enough of the hormone thyroxine to meet the body's demands. The disorder is more prevalent in certain breeds
- In simple hypothyroidism, the thyroid gradually loses function. In the autoimmune form of the disease, the immune system attacks the tissues of the thyroid gland
- Symptoms of hypothyroidism are wide-ranging and can differ from dog to dog. Classic signs include lack of energy, weight gain, and poor coat and skin condition. There are many more subtle symptoms that should also be considered when evaluating a patient for hypothyroidism
- Diagnosing canine hypothyroidism can be difficult. My preference is to run a complete thyroid antibody profile rather than just the T4 test many veterinarians order
- Treatment depends on the form the condition takes and the dog's response to thyroid hormone replacement therapy. I always try to prevent full-blown disease in my patients through proactive routine monitoring of thyroid levels

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Canine hypothyroidism is a condition in which your dog's thyroid is underactive and unable to produce enough thyroxine to meet the body's needs.

Thyroxine is an extremely important hormone in the body, playing an essential role in food metabolism, growth and development, oxygen consumption, reproduction and resistance to infection.

Your dog's thyroid gland is a small butterfly-shaped organ in his neck (at the base of his throat), with one lobe on each side of his trachea. There are a variety of things that can cause this little gland to fail.

One is an immune system disorder called **autoimmune thyroiditis**, which means the body is attacking the tissues of the thyroid gland.

In response, the thyroid will first try to compensate by producing more and more hormone (thyroxine). But after a while, the gland becomes depleted. It's at this point your dog develops symptoms of the disorder and is diagnosed with hypothyroidism.

Another way your dog can become hypothyroid is if the gland begins to shrink with age or becomes inflamed, producing less and less hormone over time, until eventually she doesn't produce enough to support normal biological processes. Other potential causes of hypothyroidism include:

- Certain medications, especially corticosteroids
- Lack of exercise, which can play a role in reducing the production of thyroid hormone
- Exposure to toxins, including vaccinations

Dogs at Highest Risk

Hypothyroidism is relatively rare in miniature and toy breeds, and is more common in medium to large size dogs. Male and female dogs acquire the condition at about the same rate, but spayed females are more commonly affected than unspayed females. Several breeds are genetically predisposed to the disorder, including:

- Airedale Terriers
- Golden Retrievers
- Boxers
- Greyhounds
- Cocker Spaniels
- Irish Setters
- Dachshunds
- Labrador Retrievers
- Doberman Pinschers
- Miniature Schnauzers

Most dogs develop hypothyroidism between the ages of 4 and 10 years.

Symptoms of Hypothyroidism

Because an underactive thyroid affects so many bodily functions that rely on thyroxine, symptoms of the disorder vary widely and can be different from one dog to the next.

Lack of energy, evidenced by frequent napping, exercise intolerance, or loss of interest in running and playing, is a hallmark sign of hypothyroidism. Other symptoms include:

- Weight gain without increase in appetite or calorie intake
- Discoloration or thickening of the skin
- Low tolerance for the cold
- Chronic infections of the skin or ears
- Dull, dry, brittle, thin or greasy coat
- Depression or mental dullness

- Hair loss or failure to regrow clipped hair
- Slow heart rate
- Dry, itchy skin
- Significant behavioral changes (e.g., aggression, head tilting, anxiety, compulsiveness, seizures)

Interestingly, behavior changes can be very important markers for hypothyroidism in certain dogs. For example, most of my clients offer species-appropriate, fresh, non-GMO, organic diets to their pets. In very well-nourished dogs, often the only symptom of hypothyroidism is a very subtle change in personality or behavior.

In one of my canine athlete patients with autoimmune thyroiditis, the only symptom was that she started forgetting directions on the agility course and her race times were a few seconds longer.

As you can see, there are many warning signs to look for if you suspect your dog has a thyroid problem. Unfortunately, most overt symptoms of canine hypothyroidism don't appear until at least 70% of the thyroid gland has been damaged.

Diagnosing Canine Thyroid Disease Can Be Tricky

One of the problems in diagnosing thyroid disease in pets is the use of standard laboratory reference ranges for what is considered normal or expected levels of thyroid hormone in the bloodstream.

For example, there's just one reference range for dogs, no matter their age or breed. Dog sizes vary tremendously, from the tiny Chihuahua to the giant Saint Bernard or Irish Wolfhound, and obviously, these dogs don't have similar metabolisms.

As a veterinarian, I need to know what the ranges are for a tiny dog who is much more active, with a much higher metabolism than a giant breed.

In addition, the one-size-fits-all reference range makes even less sense when we factor in the effect of aging on thyroid levels. Young animals have higher metabolic demands. Mature animals are no longer growing, so their metabolic demands are less.

Another challenge for proactive veterinarians is diagnosing the disease before a dog shows up in the exam room with end-stage symptoms and three-quarters of his thyroid gland shot.

Thyroid Antibody Profile Versus the T4 Test

As part of most comprehensive wellness exams, veterinarians order a number of blood tests, including a total thyroxine (T4) test, which is a type of thyroid function test.

However, the results of a T4 test can be misleading because thyroxine levels can be affected by non-thyroid-related illnesses, a wide variety of drugs, and excessive iodine in the diet. Unfortunately, some veterinarians treat patients based on just the T4 value, when it may or may not be appropriate, such as in the case of autoimmune thyroid disease.

My friend and colleague Dr. Jean Dodds, who is one of the world's foremost authorities on thyroid disease in pets, believes an accurate diagnosis requires a complete thyroid antibody profile. The test is more expensive than a T4, but it tells us what we can rule in or out.

As part of a complete thyroid antibody profile, Dodds includes total and free T4, and total and free T3, which are markers for a non-thyroidal condition. The T3 values are important because in the case of a sick animal who has low levels in all four measures, it's much more likely to be a non-thyroid-related illness.

Dodds also recommends a thyroid antibody test, which for the initial screening is the thyroglobulin autoantibody (TgAA) test. She doesn't include a thyroid-stimulating hormone (TSH) test, because it's accurate only about 70% of the time in dogs.

Treating Simple Hypothyroidism in Dogs

If there's no autoimmune disorder (autoimmune thyroiditis) present, my recommendation is to try stimulating remaining thyroid tissue to begin working again. If your dog's thyroid gland is simply wearing out, it's possible it can be regenerated using a more natural form of thyroid replacement.

I like to use thyroid glandulars early on in thyroid gland exhaustion (mild insufficiency or borderline low results). If a dog's thyroid has "retired early," (meaning it's no longer capable of producing any thyroid hormones at all) then my next choice is to replace thyroid hormones (T3 and T4) with prescription glandulars such as Nature-Throid, Thyroid USP, or Armour Thyroid.

I always start with a natural thyroid extract and monitor the response. During this supportive phase, other natural treatments, such as homeopathic remedies, can also be beneficial.

I also address the patient's diet (in particular, iodine and tyrosine intake), and environmental and veterinary toxin load. It's important that any animal with thyroid disease has a thorough lifestyle evaluation to determine if there are external (toxin-related) causes for the gland to begin to fail.

Generally speaking, all dogs with suboptimal thyroid function will benefit from eating an unprocessed, fresh food diet. They should not be vaccinated (ask for titers instead), and should avoid exposure to household and lawn chemicals. Dodds has an extensive databank of breed reference ranges, so I have her Hemolife Diagnostics laboratory analyze thyroid panels for my patients because she is also able to compare each set of test results to other dogs of the same breed, sex and age.

Managing the Autoimmune Form of the Disease

Dodds estimates that from 20 to 45% of certain dog breeds (including those listed above) develop autoimmune thyroiditis. Of those dogs, about 8% will have a normal TgAA, while the remaining 92% will have high levels. Any dog with a confirmed case of autoimmune thyroiditis should be treated immediately to halt further progression of the disease. The goal is to save whatever thyroid tissue remains and put the whole thyroid stimulatory process in hibernation.

Dodds recommends giving synthetic thyroxine in smaller-than-normal doses based on the dog's optimum weight. The special dosing prevents the animal from becoming hyperthyroid during treatment. It typically takes five to seven months for TgAA levels to return to normal, or close to normal.

The treatment must be continued for the rest of the dog's life, and a complete thyroid antibody profile must be run at specific intervals because the TgAA level can jump up again if stressors or other health changes occur. According to Dodds, dogs on thyroxine therapy should be tested after six to eight weeks on the appropriate dose of twice-daily hormone. In addition, it's important to give the thyroxine separate from any food or supplement containing calcium or soy.

Calcium and soy bind to thyroxine, and so despite the guidance of some veterinarians and even what may be printed on the label, it should not be given with meals in order to achieve steady-state absorption and reliable post-pill therapeutic monitoring.

Blood samples should be taken four to six hours after a thyroid pill, and a complete thyroid antibody profile should be run. If, for instance, the test results show that a dog is hypothyroid but has a normal TgAA, he should receive treatment. Then in six or eight weeks, another sample is taken four to six hours post-pill, but the TgAA isn't needed this time. We can just run T4, free T4, T3, and free T3.

Dodds stresses that we should always include the T3 and free T3 tests, along with T4 and free T4 tests, even though the current recommendation may be to use only total T4 for monitoring purposes.

It's important not to try to use natural thyroid support products, including kelp or other natural sources of iodine, as well as over-the-counter (OTC) thyroid glandular products in cases of autoimmune thyroiditis, because the disease will continue to progress if the animal isn't given synthetic thyroxine.

Partner With Your Veterinarian to Prevent Full-Blown Hypothyroidism in Your Dog

In my practice, I address every blood value that is out of range. Rarely is an out-of-range value "good enough" or "healthy enough" as far as I'm concerned. This is where clinical pathology — charting internal organ changes on bloodwork over time — becomes very important.

If I have a patient whose thyroid levels are dropping steadily from mid-range, to suboptimal, to borderline low, I institute appropriate gland support before the gland completely fails. This is an example of practicing proactive rather than reactive veterinary medicine.

Many veterinarians will wait not only for test results to show very low values, but also for their patients to exhibit 3 of the 6 classic symptoms of hypothyroidism before instituting synthetic hormone replacement. In other words, they wait for an animal to develop full-blown disease before they implement treatment. I'm able to help many pets avoid taking lifelong thyroid medications by catching the gland's under-activity very early in the game.

That's why I recommending finding a holistic or integrative veterinarian who is open to monitoring all your dog's blood values, sending thyroid panels out for analysis (preferably to Hemolife Diagnostics), and who can also prescribe thyroid glandulars and the cofactors (tyrosine and iodine) in the right dosages for your dog.

Sources and References

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