

**Dog Tips** 

# The Common Condition Many Owners and Veterinarians Overlook

If your dog is adding on pounds (and not overeating), lacks energy, has dry, itchy skin and is acting aggressive or anxious, he may be suffering from this easily missed but common condition. To help prevent your pet from needing lifelong medications, request this special test.

#### Analysis by Dr. Karen Shaw Becker

## **STORY AT-A-GLANCE**

- Hypothyroidism occurs due to inflammation or shrinkage of the thyroid gland that causes it to be underactive, or unable to produce adequate amounts of thyroid hormones
- Lack of energy is a hallmark sign of hypothyroidism, along with weight gain, chronic infections, dull coat, hair loss and low tolerance for the cold
- Some of the earliest signs of hypothyroidism are behavioral in nature, such as erratic or unstable temperament, passivity, irritability or aggression
- Many dogs with hypothyroidism display elevated fasting cholesterol and triglycerides, mild anemia and elevated liver values prior to thyroid levels decreasing, while neurological weakness, corneal deposits, heart arrhythmia and appetite changes can also occur later in the disease
- Many veterinarians ignore subtle signs of hypothyroidism until test results show very low values or their
  patients display severe symptoms; however, it's possible to start support before full-blown disease develops,
  which may be able to prevent your pet from needing lifelong thyroid medications

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Despite being relatively common in middle-aged dogs, hypothyroidism isn't always easy for owners — or veterinarians — to spot. Its symptoms, such as weight gain, poor skin and haircoat, increased thirst and urination, and progressive lethargy often occur gradually and can be easily mistaken for other ailments.

Regular blood tests, including a thyroid panel, as part of your dog's annual wellness exams can help with diagnosis, but even then the results can be misleading and may not reveal the early stages of hypothyroidism.

Hypothyroidism occurs due to inflammation or shrinkage of the thyroid gland — a small, butterfly shaped gland in the neck,<sup>1</sup> with or without an auto-immune component, that causes it to be underactive, or unable to produce adequate amounts of the thyroid hormones thyroxine (T4) and triiodothyronine (T3).

Thyroid hormones play an important role in metabolism, growth and development and resistance to infection, which is why hypothyroidism can cause a wide range of debilitating symptoms.

## Signs of Hypothyroidism in Dogs

While hypothyroidism affects dogs of all ages, the average age of onset is 7 years old, with most dogs developing the condition between the ages of 4 and 10 years. It can also affect all breeds, but certain dogs from large and smaller breeds seem to be more prone to the disorder. This includes:<sup>2</sup>

- Doberman pinschers
- Golden retrievers
- Irish setters
- Great Danes
- Boxers
- Cocker spaniels
- Dachshunds
- Poodles
- Miniature schnauzers

Many dogs with hypothyroidism display elevated fasting cholesterol and triglycerides, mild anemia and elevated liver values, while neurological weakness, corneal deposits, heart arrhythmia and poor appetite can also occur, although less commonly.<sup>3</sup> 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)

By the time obvious symptoms occur, a significant portion of the thyroid gland — at least 70% — may already be damaged. Hypothyroidism is a disease that develops over time — your dog won't just wake up one day with the condition, although the symptoms may suddenly become apparent.

Some of the earliest signs of hypothyroidism may occur a year before more classic symptoms and are often subtle and behavioral in nature, such as erratic or unstable temperament, passivity, irritability, depression, sluggishness or aggression, as well as not paying attention when you call them.

## **How Hypothyroidism Is Diagnosed**

A complete thyroid panel is necessary to accurately assess thyroid health. One of the most thorough conventional panels available is offered by the Michigan State University Diagnostic Center for Population and Animal Health — and is often referred to as simply the "Michigan panel."

It tests not only for T3 and T4 levels, but also TgAA (antithyroidglobulin antibodies), elevated levels of which may indicate immune-mediated thyroiditis, which means the body is attacking the tissues of the thyroid gland. In other instances, the thyroid may stop working optimally due to age, medications such as corticosteroids, lack of exercise or exposure to toxins, including vaccinations and other endocrine-disrupting toxins.

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. Unfortunately, many veterinarians rely on standard laboratory reference ranges for what is considered normal of thyroid hormone in the bloodstream, even though what's "normal" varies widely depending on age, activity levels, breed and size.

As part of a complete thyroid antibody profile, Dodds also includes total and free T4, and total and free T3, which are markers for a nonthyroidal 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 nonthyroid-related illness.

While the Michigan panel also includes a TSH, or thyroid-stimulating hormone test, Dodds doesn't recommend it because it's only accurate in dogs about 70% of the time.

Dodds also 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.

# Take Action at the First Sign of a Problem

Many veterinarians ignore subtle signs of hypothyroidism until test results show very low values or their patients display several obvious — and severe — symptoms. However, it's possible to start support, via glandular therapy, before full-blown disease develops, which may be able to prevent your pet from needing lifelong thyroid medications.

By catching the gland's under-activity very early in the game, appropriate gland support can be offered. For instance, 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.

Because hypothyroidism is so difficult to recognize and diagnose, this is an instance where working with an integrative veterinarian, who is charting internal organ changes on bloodwork over time, can be invaluable.

In addition to closely monitoring your dog's regular blood values, thyroid panels should be sent out for analysis (preferably to Hemolife Diagnostics), and thyroid glandulars and the cofactors (tyrosine and iodine) should be prescribed — in the optimal dosages — at the first sign of a problem.

#### **Sources and References**

