Is a Thyroid Problem Causing Your Pet's Wasting or Obesity?

Dogs and cats typically exhibit opposite symptoms when experiencing thyroid issues. One will waste away despite eating more, and the other will stack on extra inches without an increase in appetite or caloric intake. Both can be serious, so know the signs for each.

Analysis by Dr. Karen Shaw Becker

STORY AT-A-GLANCE

- Both dogs and cats can suffer from thyroid problems, but dogs typically develop hypothyroidism, whereas cats almost always develop hyperthyroidism
- Signs of hypothyroidism in dogs include lack of energy, weight gain, changes in skin and coat, frequent napping, and exercise intolerance
- A combination of increased appetite, weight loss and sudden, unexpected bursts of energy in an older cat are signs of hyperthyroidism
- If you suspect your pet has a thyroid problem, it's best to partner with an integrative veterinarian with expertise in diagnosing the disease and treating it

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Both dogs and cats experience disorders of the thyroid, but they're usually affected in different ways. Dogs much more commonly develop hypothyroidism, or low thyroid hormone (thyroxine) levels, in the age range of 2 to 7 years.[1] Cats, on the other hand, almost always develop hyperthyroidism, or high thyroxine levels, and it tends to occur in middle-aged and older kitties.

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.

Causes of Canine Hypothyroidism

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 it doesn't produce enough to support normal biological processes. A nutritional deficiency of iodine, tyrosine or the body's inability to convert the amino acid phenylalanine to

tyrosine can also result in hypothyroidism.

Other potential causes of hypothyroidism include certain medications, especially corticosteroids and exposure to endocrine disrupting toxins, including antigens in vaccines, which can ultimately lead to immune-mediated disease in the gland.

Symptoms to Watch For

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, dark coats can become reddish-brown
- Depression or mental dullness
- Hair loss or failure to regrow clipped hair
- Slow heart rate
- Dry, itchy skin and flakey nails
- Significant behavioral changes (e.g., aggression, head tilting, anxiety, compulsiveness, seizures)

If you suspect your dog has developed hypothyroidism, in addition to making an appointment with your integrative veterinarian, I encourage you to review this article for much more information on how the condition is diagnosed, including appropriate tests, and treating both simple and autoimmune forms of the disease.

It's important to remember this condition doesn't happen overnight and long before the diagnosis of clinical hypothyroidism there's always declining thyroid levels, or "sluggish" hormone production (another great reason to include thyroid testing on your pet's annual bloodwork).

If your dog's thyroid levels are dropping over time but are still within range, "borderline" or "low normal" levels can be bolstered with a variety of thyroid stimulating nutrients, herbs and glandulars. I recommend partnering with your proactive vet to institute a protocol as soon as thyroid levels aren't optimal to prevent fulminant disease.

Causes of Feline Hyperthyroidism

Feline hyperthyroidism is the most commonly diagnosed endocrine disorder in domestic cats, especially senior kitties. In fact, 95% of cats with hyperthyroid disease are 10 years or older.[2] The disorder is typically caused by a benign tumor (adenoma) on the thyroid gland that causes overproduction of thyroxine, a situation that can cause serious, even life-threatening symptoms in cats.

Exposure to flame retardant chemicals (polybrominated diphenyl ethers, or PBDEs) has been linked to the development of hyperthyroidism in cats. PBDEs are recognized endocrine and thyroid disruptors.

In a 2015 study, researchers analyzed the blood from 60 pet cats for the presence of flame-retardant chemicals. The objective of the study was to evaluate the differences in the levels of chemicals in healthy cats vs. cats diagnosed with hyperthyroidism. Of the 60 cats in the study, 23 had normal thyroid function and 37 were hyperthyroid.

The study results showed that the hyperthyroid cats had higher blood levels of PBDEs on a fat weight basis; in essence, endocrine-disrupting environmental chemicals are making their way into our feline's bodies at alarming rates.

Another earlier study suggested that flame retardant chemicals in house dust are linked to thyroid disease in cats. The study authors concluded that cats are primarily exposed to flame retardant chemicals by ingesting house dust — which occurs when they groom themselves.[3]

Housecats seem to have extraordinary exposure to PBDEs. In 2012, Swedish researchers demonstrated that serum PBDE levels in Swedish cats were about 50 times higher than in the Swedish human population,[4] and a 2007 study showed that PBDE levels in U.S. cats were 20 to 100-fold greater than median levels in U.S. adults.[5]

A more recent study sheds even more light on the connection between flame retardant compounds and feline hyperthyroidism, suggesting that fish-flavored cat food could be a culprit.[6] Scientists evaluated cat food and feline blood samples and discovered that the type of polychlorinated biphenyl (PCB) and PBDE byproducts found in both the food and blood samples are derived from marine organisms.

The researchers were also able to simulate the way in which the bodies of cats convert the type of chemical present in the food into the type of chemical seen in the cats' blood samples.

Based on their results, the team concluded that the byproducts detected at high levels in cats' blood samples likely came from fish flavored cat food and not exposure to PCBs or PBDEs. However, further work is needed to determine the link between the metabolites (byproducts) and hyperthyroidism.

Symptoms to Watch For, Especially in Cats Over 10

About half of all kitties that develop hyperthyroidism have an increased appetite, but ultimately, about 90% of them lose weight because a side effect of excessive thyroid hormone levels is an increase in metabolism.

Other symptoms of hyperthyroidism include high blood pressure; frequent vomiting; increased body temperature, heart and respiration rates (due to the up regulation of metabolic processes); hyperactivity, restlessness, nighttime yowling and eye problems in undiagnosed/untreated cases.

A combination of increased appetite, weight loss and sudden, unexpected bursts of energy in an older cat is a definite sign he or she may have an overactive thyroid. It's important to make an appointment with your veterinarian as soon as possible.

If you suspect your kitty is hyperthyroid, in addition to making an appointment with your integrative veterinarian, I recommend reviewing **this article** for very important information on appropriate diagnostic tests, as well as information on how to both treat and prevent the disease.

Sources and References

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