

If Your Pet Just 'Ain't Doin' Right,' These Little Glands Could Be the Source of the Problem

Dr. Lea Stogdale, an integrative/holistic veterinarian in Winnipeg, Canada, is an adrenal gland expert who specializes in treating pets with cortisol insufficiency.

Reviewed by Dr. Becker

STORY AT-A-GLANCE

- Dr. Lea Stogdale is an integrative/holistic veterinarian in Winnipeg, Canada who specializes in treating dogs with adrenal gland dysfunction
- Dogs who just “Ain’t Doin’ Right,” with lack of appetite, sluggishness, intermittent vomiting or diarrhea or other signs of illness, should be checked for cortisol insufficiency
- Dr. Stogdale treats cortisol insufficiency with a combination of the right nutrition, appropriate supplementation, exercise and cortisol replacement therapy
- She runs regular diagnostics on her patients, but relies primarily on the owner’s assessment of how their dog is doing to gauge the success of her treatment protocol
- Dr. Stogdale offers suggestions to pet owners on questions to ask a prospective veterinary clinic to insure they have experience diagnosing and treating adrenal gland disorders

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Dr. Lea Stogdale owns an integrative holistic veterinary practice in Winnipeg, Canada. She graduated from veterinary school in Australia, and then started her career in a dairy practice.

"Interestingly enough," she says, "back then, we would call that an organic holistic practice. Our clients were dairy farmers with, say, 100 cows. The farmers fed their animals properly and didn't use antibiotics. The cows lived outdoors and were able to move their bodies as nature intended."

After her experience with dairy cows, Dr. Stogdale began practicing small animal medicine and became a specialist in internal medicine in dogs and cats. Unfortunately, her partner at the time "wanted to vaccinate every pet every year with every vaccine," she says.

Dr. Stogdale knew this was a very bad idea based on her internal medicine background. She and her partner parted ways and she started her own practice, [Aesop's Veterinary Care](#), so she could practice veterinary medicine her own way, and in a way that most benefitted her patients.

Dr. Stogdale gradually integrated complementary and alternative therapies into her practice, focusing on nutrition as the foundation of good health. She approached the well-being of her patients in a holistic, integrative fashion, which ultimately led to her current area of expertise — adrenal gland function.

The adrenals are "[t]he very secret little glands that very much control our body," says Dr. Stogdale.

Cortisol Insufficiency in Dogs Is Often Misdiagnosed

The adrenal glands cause problems for a lot of dogs. According to Dr. Stogdale:

"The very overactive adrenal gland is very commonly misdiagnosed because the stressed body needs more cortisol to cope with stress. But the underactive adrenal gland is very commonly under diagnosed.

The majority of veterinary internists today recognize just cortisol insufficiency," she continues.

"In fact, when the disease commonly called Addison's disease — that's a difficult name, Addison's or hypo (lack of) adrenal cortical. It's difficult because there are three parts of the adrenal cortex.

The classic Addison's includes the electrolyte imbalance. That's the classic slow heartbeat, so forth. But now, the papers being published are talking about 60% or 70% of hypo — lack of — adrenal gland function — is just cortisol insufficiency.

But that's very much in the specialist's areas still. It's more, again, in holistic medicine. I'm afraid that general practitioners are still in the catch-up stream."

Dr. Stogdale says she really hates the name atypical Addison's.

"I would call them complete adrenal shutdown," she said, "which is really an autoimmune or body destroying itself disease.

I'd call that hypoadrenocorticism. Because really, by the time we see all three layers shut down, the adrenal glands are not much use to the pet, and we have to replace that.

The cortisol insufficiency, I call it cortisol insufficiency because it's not just deficiency. It's an inadequate cortisol for that patient's needs."

Cortisol Insufficiency Is Often the Diagnosis for Dogs Who Just 'Ain't Doin' Right'

Dr. Stogdale explained how she diagnoses cortisol insufficiency. "I'm diagnosing it by being aware of it," she explained. "The common clinical signs are what I call — it's a wonderful description from Colorado State University Veterinary College — ADR, Ain't Doin' Right."

For example, it's the Cocker Spaniel with a poor appetite. It's the Labrador Retriever who is picky about his food. It's the Golden Retriever who is too thin, but not on a diet. It's the dog with vomiting and/or diarrhea that comes and goes.

Dr. Stogdale has a patient named Shandy, a 10-year-old dog who has cortisol insufficiency and always develops diarrhea in the spring.

"What caused this problem," she says, "whether it was stress on the adrenals and they were exhausted, or whether it was the body destroying the middle layer of the adrenals because of some food reaction, I don't know.

But I do know that once we did a little replacement (of cortisol), Shandy is a normal dog all year."

Dr. Stogdale believes the first step in accurately diagnosing problems with the adrenals is the clinician's awareness that there could be a problem with them. She does a complete blood count (CBC) simply because the dog isn't feeling well, which means he's under stress. She expects to see an increase in cortisol and a specific distribution of neutrophils, lymphocytes and other blood values.

"We now know that the cortisol level normally is above 2 units, American units, and 55 in international units," explains Dr. Stogdale. "That's normal. In the stressed dog, it should be up near 3 to 4 in American units and near 100 in international units.

That cortisol level cut-off is virtually a hard value. No value that we have is 100%. There are good papers published, mostly in the Journal of Veterinary Internal Medicine [JIVM], that have shown we don't even need to do an adrenocorticotrophic hormone (ACTH) stimulation test, which is expensive.

The other thing that I have a caution with the ACTH stimulation test is we are there injecting a therapeutic stimulation to the adrenal gland. I'm interested in this dog's ability to respond to their situation, not an artificial therapeutic stimulant."

Adrenal Insufficiency Treatment Plan

When treating a dog with adrenal insufficiency, the first thing Dr. Stogdale does is address the diet. "Eighty percent of my practice is nutrition," she says. She may continue to adjust the diet depending on how the dog is responding. She may adjust levels of prebiotics, probiotics and other intestinal health supplements. And of course she replaces the cortisol the dog's body is not producing.

"I replace it using hydrocortisone," she explains, "which is cortisol for the body. It's exactly the same compound but at a very low dose, called a physiologic dose. For example, a Labrador or Golden Retriever might be given one quarter of a 10-milligram hydrocortisone tablet.

I often have to get it formulated into liquid (compounded)," Dr. Stogdale explains, "because compounding helps fine tune the dose to the patient."

The No. 1 assessment she uses to determine how a patient is responding is to ask the owner how their pet is doing. How are they feeling? Are they having any episodes of vomiting or diarrhea or just not feeling well for a day? That's 80% of the assessment.

Dr. Stogdale also runs blood tests to make sure the cortisol dosage is right. And she warns owners that if their dog gets sick because he got into the garbage because his appetite is back, they need to double the next hydrocortisone dose.

Adrenal Burnout Versus Adrenal Insufficiency

Dr. Stogdale talks about adrenal burnout and adrenal insufficiency and whether she differentiates between them.

"My owners do," she replied. "Yes, I do. But I don't have to do anything. The owners invariably, bless their hearts, will stop the medicine when they run out of it. Then what happens, as Shandy's owner found out, is vomiting and diarrhea. She ended up at the emergency clinic.

The owner and I go back many, many years. We laughed about it. But I said, 'Thank you so much. We now know that Shandy really needs this medicine ongoing. You've tested it.' It was an expensive test!

But what I will do is when I see the pet the next year, I'll say to the owners, 'Doing really well. He's on maybe 0.8 of a milliliter. Can he go down to 0.7?' And the owner will say, 'No. Didn't do so well. He's back on 0.8.' And I'll go, 'Okay. Just leave it alone.'"

Dr. Stogdale also discussed if adrenal burnout can be reversed, or if it's a lifelong condition.

"I don't think we know enough about that," she answered. "I don't think that's well enough documented. I think, in fact, a lot of those animals are actually being seen by general practitioners.

Often, general practitioners practicing conventional veterinary medicine inappropriately give a single injection of dexamethasone, a very potent steroid that lasts functionally in the cells. Probably two to three weeks, may in fact be coping with temporary adrenal burnout.

The wrong medicine may be doing the cover-up of temporary adrenal burnout that we're not seeing. The ones I'm seeing, I'm more diagnosing the ones that have been going on for some time. I've had a few that have come back, but mostly not."

In human medicine, you absolutely can recover from adrenal burnout. It can take months to years, but it's possible. In dogs, by the time the condition is diagnosed, it's chronic. It can be managed but not necessarily cured. Dr. Stogdale said, "I think a lot of the problem is what we're feeding our dogs — kibble, not real food."

Processed pet food is very metabolically stressful and taxes the adrenals. The longer the dog eats it, the longer it taxes her adrenals. "Taxing, absolutely," Dr. Stogdale agrees. "And in particular, damaging the intestinal tract, which is 70% of our immune system. For goodness sake, what are we doing?"

The Value of Diagnostic Testing and Charting

When asked if she does cortisol testing, Dr. Stogdale says she does so much of it, in fact, that looking at cortisol has almost become part of her standard screening tests.

Speaking of screening tests, Dr. Stogdale believes in giving her clients access to their pet's test results so if they move, or change veterinarians ... or if she's away on vacation or at a conference, they have the information on hand and can pass it along to another vet if necessary.

In addition, when owners are empowered to learn about their dog's test results, they become more actively involved in their pet's wellness. They learn, for example, how to compare last year's cortisol levels with this year's. Dr. Stogdale also has a system for comparing values in the bloodwork from one test to the next and/or one year to the next, so that she builds a charting history for each of her patients.

Of course, while the diagnostics are very valuable, asking owners "How's your dog doing?" is still the first assessment, according to Dr. Stogdale. She quotes veterinary endocrinologist Dr. Edward Feldman who says, "It's the dog on the table that's most important. Not the blood tests."

And while we're very fortunate to have diagnostics available to us, if a dog doesn't start feeling better, all the blood test results in the world don't matter.

The Impact of Spaying and Neutering on the Adrenals

Dr. Stogdale also talked about how spaying and neutering impact the adrenal gland.

"I don't think we know that," she answered. "Let me jump off a bandwagon here. There is a bandwagon talking about cortisol and how it compares with estrogen and testosterone and so forth. There are some tests that are done about that. Because I'm doing the lectures on the adrenal gland, I have just reviewed the literature. Thank you very much. I'm very evidence-based."

This is not always a comfortable topic here at the holistic conference that there are some profiles done that include thyroid and sex hormones of which there is no validation whatsoever besides the person doing the test for their own profit. There has been no validation outside.

There's been no independent evidence on those tests. The other thing is those tests usually come back as the patient is diseased. That's not true. For example, where I get my thyroid panels done, I get back many normal results, many hypothyroid and so forth. That's what I expect."

When we spay or neuter a dog, we remove a major source of estrogen and testosterone. The adrenal glands can produce testosterone, which in the peripheral tissues is converted to estrogen, as long as the adrenal cortex is working correctly and is healthy.

"If it's healthy, it's producing quite enough," Dr. Stogdale explains. "Do not call post-menopausal women diseased. If their adrenal glands are working fine, they are healthy. Thank you very much."

If the adrenal gland is affected and stressed, because the cells of the adrenal glands grow from the capsule on the outside through the electrolyte-protecting aldosterone hormone, through the cortisol-producing to the testosterone-producing. If the animal is affected at the top layer, it will be affected in all three layers.

Going back to the complete Addisonian hypoadrenocorticism, if they're aldosterone deficient, they are going to either be now or will become cortisol and sex steroid deficient. If they're cortisol deficient, they are very likely to become, not necessarily, but they can become sex steroid deficient. They can become just sex steroid deficient but the other layers are still working fine."

Dr. Stogdale corrects that with physiologic testosterone replacement.

"I do physiologic replacement doses," she says. "Generally speaking, we use whichever product the practitioner chooses. I don't mind. The only thing that I'm very strong about is in non-emergency medicine, there should be no such thing as a loading dose.

In non-emergency medicine in humans, there are no loading doses. Yet in conventional veterinary medicine, there are a number of products encouraged by the pharmaceutical industry that wants you to give loading doses. That is not pharmacologically valid."

It's not physiologically normal either. It's a stressor.

"One of the problems that we have with conventional medicine replacing the estrogen and testosterone is that they would say, 'Give a pill once a day every day for three days.' No. Give one dose of whichever you choose. In fact, wait for the dog to become incontinent. It may be 28 days later or longer. The dog might need just one dose a month."

Veterinary Internists as a Group Are Slow to Embrace an Integrative Approach

Dr. Stogdale is a common sense internist who is integrative, open-minded and very thoughtful. When asked if she feels other veterinary internists are moving toward a more integrative approach, she replied that in general, no, they're not. But there are some who are becoming more open-minded.

"The interesting thing is it's the really informed nutritionists that recognize how homemade diets are benefitting patients," says Dr. Stogdale. "However, internists increasingly talk about melatonin for all allergies and immune disease, along with melatonin lignans for hyperestrinism.

They use glucosamine. They use omega-3s. They talk about Yunnan Baiyao for bleeding. They are also talking more about proper protein diets for kidney disease in dogs and cats, not low-protein diets. So veterinary internists are talking about these things, but is it reaching the general practitioners? This is an interesting industry problem. We have two major sources of information for our general practitioners.

There are specialists who lecture at veterinary conferences, and then there are industry representatives who lecture or give presentations in veterinary practices to sell their products.

The problem is that unfortunately, industry has an undue influence. Also, unfortunately, I think because veterinarians are boringly taught nutrition in veterinary school, they end up hating nutrition and just want to recommend a diet. Take a bag of this. Nutrition is much slower coming into the general paradigm of veterinary medicine."

Sadly, basic nutrition, and especially the idea of raw diets, scares many veterinarians.

The Pros and Cons of Glandulars to Treat Adrenal Disease

Dr. Stogdale also talks about using glandulars to treat problems with the adrenals.

"I'm completely supportive" she responded. "I absolutely use the whole adrenal gland. I use a lot of whole thyroid. I haven't actually totally used the adrenal glandular support, but I'm going there. There are two problems with the glandulars. Firstly, they're made from beef, and if a dog has a beef allergy, we have a problem. I wish they were made from pork, because there's much less of a pork allergy problem."

The other problem is that the glandulars — I know this effect from my thyroid patients is because they're whole thyroid or whole adrenal — are they from a group of cows that were already adrenally exhausted? Or was this from a group of cows that were less adrenally exhausted? Was this batch stronger than this batch?"

How the source animals were slaughtered, what they were fed, etc., all play a role.

"That's right," says Dr. Stogdale. "When we talk about organically raised food animals, they're slaughtered in the same way. Otherwise, they can't be sold for human medicine. They go to the abattoir. They just may go on a Monday and stayed on a Wednesday."

They go through the same stress. We all end up wondering about stress hormones. If you consume meat or if you're feeding predators, cats and dogs, you end up wondering.

"That's right," says Dr. Stogdale. "Now there's a big problem with organic chicken because they're putting arsenic and other chemicals in what they're walking on instead of antibiotics. Because they can call arsenic 'natural.' Some strains of bacteria are now hugely resistant, including to heat."

Today's Dogs and Cats Deal with Tremendous Environmental Stress

What this all links back to, pertaining to the adrenal topic is that we have dogs and cats who suffer a tremendous amount of environmental stress. They're crated. They don't get exercise. They're eating processed food. They're over-vaccinated.

We put flea and tick chemicals on them. Then we start adding in all the problems in the food industry. If you look at the quality between pet food and human food, it's no wonder that animals' adrenals, those tiny glands needed for coping with environmental stress, are wearing out.

"Particularly because the food they're eating is causing chronic low-grade inflammation in the intestinal tract," Dr. Stogdale adds. "They're absorbing all the antigens and that is why they're getting all these autoimmune diseases and so many allergies."

Dr. Stogdale talks about whether she thinks most of the traditional Addison's today is immune mediated. Are there other causes? She replied that there's no way to know. We can't biopsy the adrenals. We can look at them post-mortem, but by that point the glands are end stage and there's no way to determine a cause.

"What's the cause," asks Dr. Stogdale. "I'm just going to blame food because I can do something about it. We're already encouraging more exercise, which is probably the area that our owners are least compliant, both with themselves and their pets. It's hugely important. I mean it's so underestimated."

When it comes to cortisol management, people really don't realize how important exercise is. Animals are natural athletes. The amount of rigorous daily exercise they need is almost never achieved. Dr. Stogdale agrees. "People say 'I take my Labrador for a walk half an hour twice a day.' I say, 'He's warmed up at that point. What's he going to do for exercise?'"

The oldest living dog in Australia, a kelpie named Maggie, walks something like eight hours a day. "I come from Australia," says Dr. Stogdale. "I come from a farm and was with blue heelers and so forth. They do between 30 and 50 kilometers, 20 and 35 miles a day. Their adrenals are fine, let me assure you! Because they're also eating raw meat."

Finding a Veterinarian Who Treats Cortisol Insufficiency

If a pet parent normally takes their dog to a conventional veterinarian, and the dog has grown sluggish and just Ain't Doin' Right, should the owner try to find an integrative veterinarian. Or is conventional veterinary medicine getting there? Dr. Stogdale answers:

"More of us are lecturing on the topic of adrenal insufficiency. But if you have a dog that Ain't Doin' Right, I think that, again, 80% is good nutrition, 15% is exercise and 5% is you probably need a proper thyroid screen that's not just an in-house T4 test, thank you very much, a CBC and a cortisol. But then how are you going to get it interpreted? You might need to go to an internal medicine or holistic vet."

Medicating an animal with adrenal insufficiency as a first step is the worst thing you can do. "The first thing you have to do is get the dog out and exercised," says Dr. Stogdale.

If you believe your dog has an adrenal gland problem and your veterinarian isn't interested in investigating it, look for a new veterinarian. Go to the [AHVMA website](#) and find a veterinarian who will test, because adrenal disease is much more prevalent than people know.

"I think," says Dr. Stogdale, "that when a dog owner calls a new veterinary clinic they should say, 'Before I make an appointment, I'd like a couple of questions answered. What is your general vaccination protocol?' The vet should be recommending rabies as per state requirements, and distemper and parvo at a maximum of every [three] to [five] years or even better, antibody titer testing instead."

Also ask, 'What is your general recommendation on nutrition? I'm not looking for free advice. I'm asking what sort of areas do your veterinarians talk about nutritionally? How do they test for thyroid?' If they say a T4, ask 'Is that done in-house?' If so, you need to move on."

Blood needs to be sent out for a proper thyroid screen and there are a number of commercial labs that do that and they do [five] tests, [three] of which are worthwhile. Also ask what tests they do to look for cortisol insufficiency. If the clinic says, 'That's not a real disease,' you need to move on. It's a real disease. As an internist, I know it is."

Many Thanks to Dr. Lea Stogdale

Dr. Stogdale is doing a wonderful job spreading the word, and it's greatly appreciated throughout the holistic and integrative veterinary community.

Her integrative approach in treating internal medicine cases is admirable because she's applying the principles of holistic medicine in a field that desperately needs them. "It's so beneficial. It's so satisfying. It's so exciting," says Dr. Stogdale.
