

Diagnostic Considerations for Dogs With Chronic Diarrhea: Why Diet Makes a Difference



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Q Diet-responsive chronic enteropathy (DRCE) is a common diagnosis in dogs with chronic diarrhea. What is the etiology?

A Chronic enteropathies are multifactorial. Among the elements in play are the immune system, genetics, diet and the animal's intestinal microbiome. If something goes awry with the microbiota in the intestinal lumen—or with the recognition of these organisms by the immune system—the adaptive immune system initiates a reaction.

Dogs with DRCE may have low-grade inflammation that is exacerbated by dietary components. The initial inflammation may not be food-induced; but if the food contains ingredients that are not tolerated by the patient, it adds fuel to the fire.

Q When should veterinarians suspect diet as a potential cause of chronic diarrhea? What workup is recommended?

A Studies have shown that diet is a factor in approximately 50% to 60% of dogs with chronic diarrhea.^{1,2} Diarrhea is considered chronic if the dog has been affected for three weeks or longer. In some cases, the diarrhea may be intermittent. Patients with DRCE are typically younger dogs that are otherwise healthy in appearance, with no weight loss, no loss of appetite and good stamina.

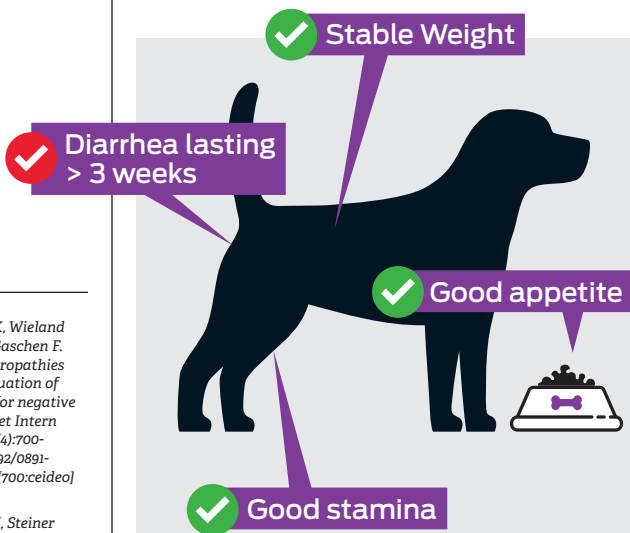
Intestinal parasites must first be eliminated as a cause. Following this, an elimination diet trial with either a hydrolyzed or novel-protein diet should be initiated. Dogs with DRCE respond more quickly than dogs with food allergy with cutaneous signs, typically within 10 to 14 days. Along with containing novel or hydrolyzed proteins, commercial elimination diets are formulated with an optimized ratio of omega-3 to omega-6 fatty acids and highly bioavailable ingredients that make them highly digestible.

Q Veterinarians can select from several types of diets for an elimination diet trial. What considerations should shape the choice for a particular patient?

A Different diets can work well and personal preference enters into it. However, there are several considerations:

- **Novel-protein diets.** If a veterinarian decides to recommend a novel-protein diet, he or she first must thoroughly research the patient's diet history in order to ascertain what protein sources have previously been fed to the dog. Without this knowledge, the protein selected may not actually be novel.
- **Home-cooked diets.** In cases where owners ask to prepare the food themselves, I respect their wishes but recommend they work with a veterinary nutritionist to ensure the diet is nutritionally balanced. Most dogs are on elimination diets for months, so if the diet has nutritional deficiencies, its deficits will outweigh its benefits.
- **Hydrolyzed diets.** If a true food allergy is suspected, some specialists debate whether or not a hydrolyzed diet obtained from a common animal protein could trigger allergic reactions in animals allergic to the protein. My experience is that commercial hydrolyzed diets can be used with good success in most dogs with DRCE.

A common question I hear from veterinarians is, "What do I do if signs point to DRCE but the dog doesn't respond to the elimination diet?" Before moving on to further testing, I suggest they first conduct a second elimination diet trial. If the first diet was a novel-protein diet, for example, practitioners may have success switching to a hydrolyzed diet.



Dogs that develop diet-responsive chronic enteropathy tend to be young dogs that are otherwise healthy in appearance.

¹ Allenspach K, Wieland B, Gröne A, Gaschen F. Chronic enteropathies in dogs: evaluation of risk factors for negative outcome. *J Vet Intern Med.* 2007;21(4):700-708. doi:10.1892/0891-6640(2007)21[700:ceideo]2.0.co;2

² Volkmann M, Steiner JM, Fosgate GT, Zentek J, Hartmann S, Kohn B. Chronic Diarrhea in Dogs – Retrospective Study in 136 Cases. *J Vet Intern Med.* 2017;31(4):1043-1055. doi:10.1111/jvim.14739



Elimination Diet Trials Require Precision, Patience



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Adverse food reaction (AFR) can be a complex condition to diagnose. Clinical signs in dogs can include either gastrointestinal (GI) signs such as diarrhea, frequent defecation and vomiting; cutaneous signs such as pruritus, erythema and secondary lesions due to self-trauma; or both. Differential diagnoses include atopy and non-food-responsive chronic enteropathy.

Confirming a diagnosis of AFR requires an elimination diet trial. This systematic work-up includes these five steps:

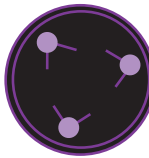
1 Gather a complete diet history.

The key to a successful elimination diet is to try and avoid ingredients, particularly protein sources, that the patient has eaten in the past. This helps the practitioner select the diet they want to use for the elimination diet trial. For this reason, it is important to learn as much about the patient's diet history as possible so that protein sources and other ingredients that may have been associated with a potential AFR can be avoided.



2 Select an elimination diet.

While veterinarians have several types of diets to choose from when conducting an elimination diet trial, one of the best options is feeding a hydrolyzed diet such as Purina® Pro Plan Veterinary Diets® HA Hydrolyzed® Vegetarian Canine Formula. This diet is formulated with hydrolyzed protein, which is protein that has been broken down into small components to be less likely to cause an adverse food reaction in certain dogs. Both HA Hydrolyzed dry and wet formulations also contain a single low-allergen carbohydrate source to help minimize the risk of an allergic reaction. In addition, these formulas include omega-6 fatty acids, vitamin A and zinc to maintain and protect the skin barrier. Finally, HA Hydrolyzed formulas contain medium-chain triglycerides, a source of fat that is easily digested and absorbed to provide readily available energy.



3 Take time to transition.

A slow transition from the current food to the diet trial food is required to help ensure that the diet change does not trigger or exacerbate GI upset. Ideally, the diet should be transitioned over a period of five to seven days, with the ratio of trial diet to original diet gradually increased.



4 Monitor the response.

The nature of clinical signs will affect the length of the diet trial. Dogs with solely GI signs typically show improvement in 2 to 4 weeks if the issue is diet-related. For dogs with cutaneous signs, the diet trial will need to last 8 to 12 weeks. A positive response to the food trial is typically defined as a greater than 50% reduction in clinical signs, such as pruritus.



5 Re-challenge the patient.

If even slight improvement is noted by the end of the trial, it is important to confirm that the original diet caused the issue. It is recommended to feed the trial diet for an additional four weeks, then transition the patient back to the original diet to see if clinical signs return. If they do, it's likely the patient was experiencing an AFR. Patients that improved while eating the trial diet can continue on that diet if it is complete and balanced. Using a hydrolyzed food with a flavour the patient prefers, such as HA Hydrolyzed Chicken Flavour or HA Hydrolyzed Salmon Flavour (coming soon), can help ensure compliance.



Strict compliance is essential to a successful elimination diet trial, meaning that the dog should eat nothing but the prescribed trial food. Because improvement may be gradual, patience is essential. Ensure that clients have enough food for a minimum of 8 weeks and prepare them for feeding the elimination diet for 16 weeks or longer. Also emphasize that *all* family members and guests must comply with the trial.

To avoid confounding the results, snacks, supplements and flavoured medications should be avoided during the trial. If a treat option is critical to securing owner compliance, Purina® Pro Plan Veterinary Diets® Gentle Snackers® canine treats contain a single hydrolyzed protein source. Single-ingredient snacks like pet-safe, low-protein fruits (e.g., watermelon) and vegetables (e.g., cauliflower) may also be fed.



Clear Communication Helps Clients Navigate Diagnosis, Management of AFR



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Client communication is key to the successful diagnosis and management of dogs with adverse food reactions (AFRs), even when face-to-face interaction isn't possible. While the COVID-19 pandemic has necessitated modifications to our communication template, we've been able to maintain our touchpoints at each step.

Detailed conversation kicks off diagnostic phase

Unlike conditions with more subtle clinical signs, adverse food reactions typically don't go unnoticed by clients, whether the signs are gastrointestinal or cutaneous in nature. When I see evidence of weight loss and/or chronic small-bowel diarrhea—or, in the case of cutaneous disease, chronic otitis or recurrent pyoderma—I recommend an elimination diet trial with Purina® Pro Plan® Veterinary Diets HA Hydrolyzed® Canine Formula to determine if an adverse food reaction is the cause.

A successful diet trial requires a detailed conversation with the owner. In the past, we held the discussion in the exam room; now it takes place on the phone while the owner is in the parking lot. Partway through, I turn the phone over to Aerin Dittmer, a licensed veterinary technician in my practice who completed the Purina Nutrition Coach certification, to answer questions. We also use a handout to explain the protocol, which includes the following points:

- **Stress that no food except the trial formula can pass the pet's lips.** If the owner asks about feeding an over-the-counter diet instead of HA, I use a peanut allergy analogy—that if the owner had one, they would not just avoid food with peanuts, but also any food that was possibly cross-contaminated.
- **Discuss who lives in the household with the pet.** If there is a toddler in the house who will be dropping food on the floor or another family

member who may not be compliant, we need to know that up front.

- **Eliminate or find alternatives to the pet's usual treats.** I recommend Purina® Pro Plan Veterinary Diets® Gentle Snackers® canine treats or suggest the client use a melon baller to scoop out small portions of HA canned formula. Another alternative is slicing HA canned and baking it into treats.



Whether it occurs in person or remotely, the client consultation at the start of an elimination trial should stress strict adherence to the trial diet.

Frequent phone check-ins track response to elimination diet

The elimination diet trial may take up to 8 weeks or longer, so phone follow-up is essential. Given the amount of information shared at the initial appointment, it's helpful to check in within a week of the first visit. Aerin makes this first call, using the time to review the plan and address questions or concerns. At the 3- to 4-week point, I call the owner to discuss how the dog is doing and whether they have noticed improvement. At the end of the trial, the patient comes back to the clinic for a re-check. If we see improvement, we discuss doing a diet challenge to help confirm the original diet was the trigger. Clients often opt to stay on HA saying, "It's working, and I don't want to go backwards."

Education, convenience facilitate long-term compliance

Compliance is vital. When flare-ups occur, we teach clients to think through potential triggers. If the dog suddenly develops itchy ears, getting the client to retrace steps may help them realize that the party they hosted over the weekend could have resulted in the dog eating something inappropriate.

It's also important to keep things convenient for the client. I'm a proponent of the Purina® Pro Plan® VetDirect program. The owner can have therapeutic diets delivered right to their door, which is a plus—especially in the current climate. It's also a win for me, because I can monitor compliance and retain the business.

Key Takeaways

- Diet has been shown to be a factor in 50% to 60% of dogs with chronic diarrhea.
- Confirming a diagnosis of adverse food reaction (AFR) requires performing an elimination diet trial. It also entails re-challenging the patient with the original diet at the end of the trial to see if clinical signs return.
- Implementing a successful elimination diet trial requires a detailed conversation with the owner to ensure they understand the importance of strict compliance and avoiding inappropriate treats.

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ONE DIET COULD HELP DOGS WITH
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