



LET'S MAKE ITCHING ANCIENT HISTORY

Hill's Prescription Diet Derm Complete is our masterpiece. The only nutrition for both food *and* environmental allergies.

- 1 Single high-quality intact animal protein that avoids 96% of food allergies¹
- 2 A breakthrough formula with bioactives and phytonutrients to help manage a dog's response to environmental allergens

THE ONLY NUTRITION FOR FOOD AND ENVIRONMENTAL ALLERGIES

THEN.

Traditionally, skin sensitivities have been a frustrating experience for everyone involved — uncomfortable for the itching pet with irritated skin, and disruptive for pet parents just trying to get a good night's sleep. And on top of that, figuring out what to do next can be expensive and time-consuming.

NOW.

But with Hill's latest innovation, we can work to make that a thing of the past. Now you can use nutrition to start to help manage itching, whether the cause is environmental or food related, right from the first visit with **Prescription Diet Derm Complete**.

In fact, **Derm Complete** demonstrated equivalent control of clinical signs* as Royal Canin Ultamino in a 21 day feeding trial among dogs with a history of food allergies² — PLUS it helps manage environmental allergies.

So whether your patient is experiencing environmental allergies or food allergies, you can feel confident that a single food can cover both.

*Scratching, head shaking, sleep quality and stool scores



ENVIRONMENTAL ALLERGIES

Derm Complete features HistaGuard Complex, which helps strengthen the skin's barrier against environmental allergens that may trigger future flare-ups. It also contains an appropriate omega-6 to omega-3 fatty acid ratio to help manage inflammation.



Owners reported a reduction in scratching in 82% of dogs with environmental allergies³

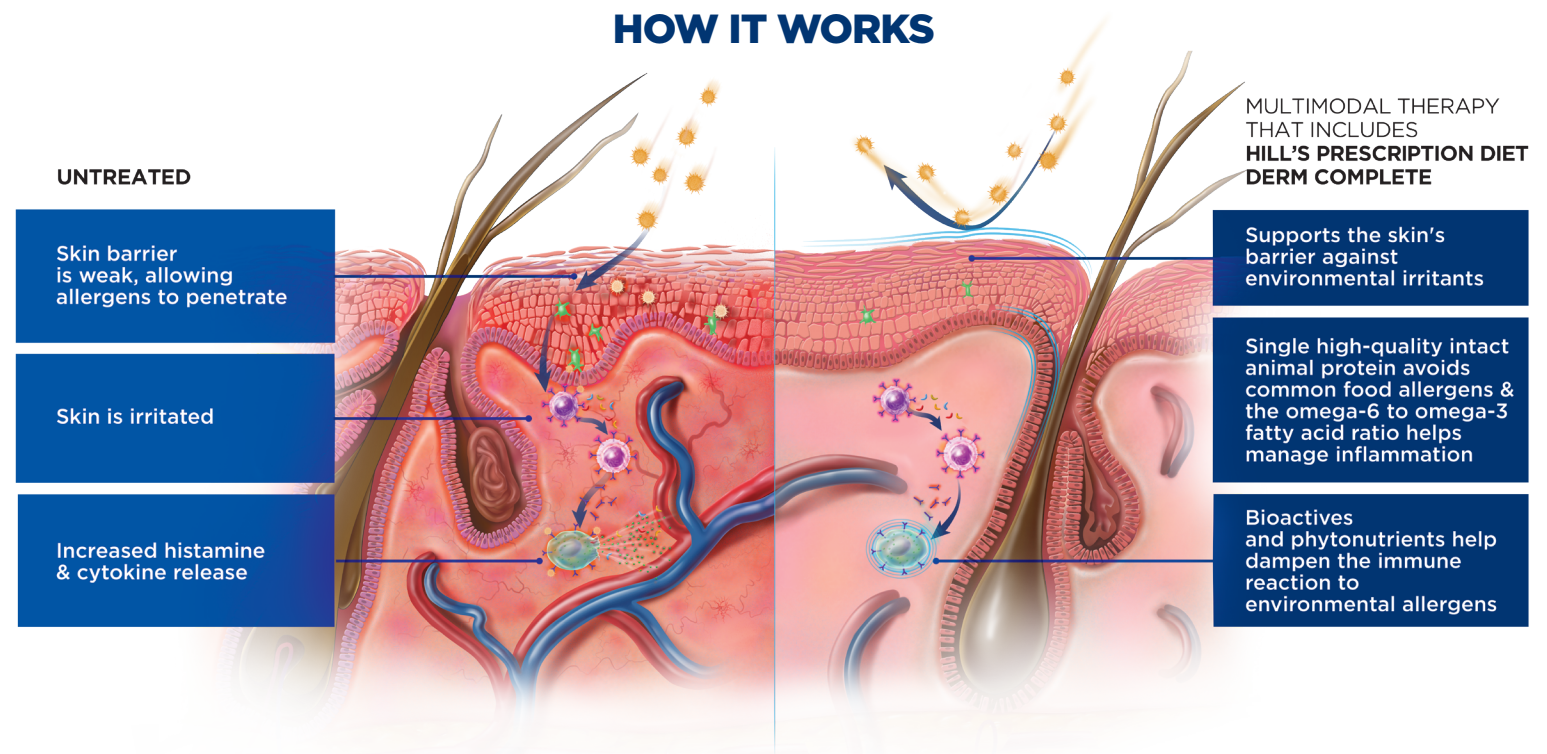
FOOD ALLERGIES

In addition to HistaGuard Complex, **Derm Complete** is made with egg as the single intact animal protein source — a high-quality protein that avoids 96% of food allergies¹ in food allergic dogs and helps reduce itching.



Visible skin healing in as little as 21 days in dogs with food allergies⁴

HOW IT WORKS



EXPLAINING DERM COMPLETE TO CLIENTS

Dogs experience environmental allergies more often than food allergies, but **Derm Complete** covers both so you can start to address the condition even before identifying the specific allergy — it's the only product of its kind; a great nutrition choice for new dermatology patients.

YOUR CLIENTS WILL SEE THE DIFFERENCE

- Formulated to support the skin's barrier against environmental irritants — year-round
- Clinically tested to manage food allergies, helping to improve quality of life in 21 days³



LET'S MAKE ITCHING ANCIENT HISTORY

DERM COMPLETE — HELP MANAGE THE ITCH

as Part of Diagnostic Workup and Initial Management (can be complemented with Hypo Treats)

Recommend for all skin conditions except known allergy to egg

Recheck in 4 weeks

COMPLETE RESPONSE

DERM COMPLETE
+ multimodal
therapy as needed



Additional
Diagnostics

**NO
RESPONSE**

NO RESPONSE

Suspect adverse food reaction

z/d

Can be complemented
with Hypo Treats

8-12 Week Elimination Diet Trial

COMPLETE RESPONSE

(Typically 1-3 weeks for improvement
in GI signs, 3-12 weeks for skin)

ADVERSE FOOD REACTION

(Food Allergy)

z/d or d/d

Can be complemented
with Hypo Treats

Ask about allergy care that's
A STEP AHEAD FOR THEIR BEST LIFE

¹Mueller RS, Olivry T, Prélard P. Critically appraised topic on adverse food reactions of companion animals (2): common food allergen sources in dogs and cats. *BMC Vet Res.* 2016;12:9.
²Hill's Data on File. ³Hill's Data on File. Clinical nutrition for the management of dogs with environmental sensitivities. ⁴Hill's Data on File. Effects of novel protein and hydrolyzed protein foods in dogs with adverse food reactions. The Hill's Transforming Lives logo, the Hill's Prescription Diet logo, the S+OX SHIELD logo, HistaGuard Complex, Hill's, Prescription Diet, Derm Complete, z/d, d/d and Hypo Treats are trademarks of Hill's Pet Nutrition, Inc. The referenced Royal Canin products are trademarks of Royal Canin SAS.





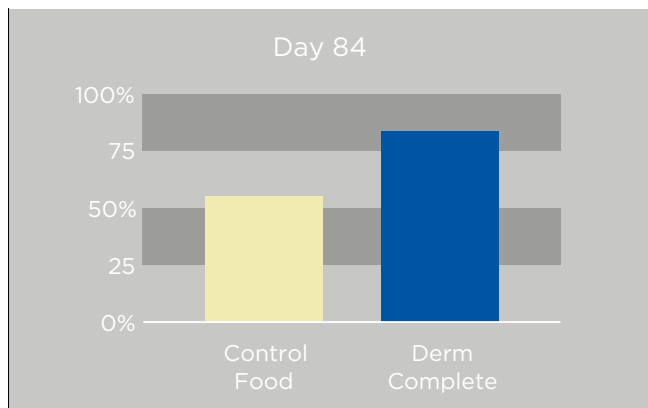
CLINICAL EVIDENCE REPORT

Client-owned dogs with canine atopic dermatitis fed **Hill's Prescription Diet Derm Complete** in a multi-center, blinded, controlled, longitudinal study demonstrated significant improvements in owner-reported clinical signs and sleep quality

Hill's Pet Nutrition, Inc. Data on file.

Results:

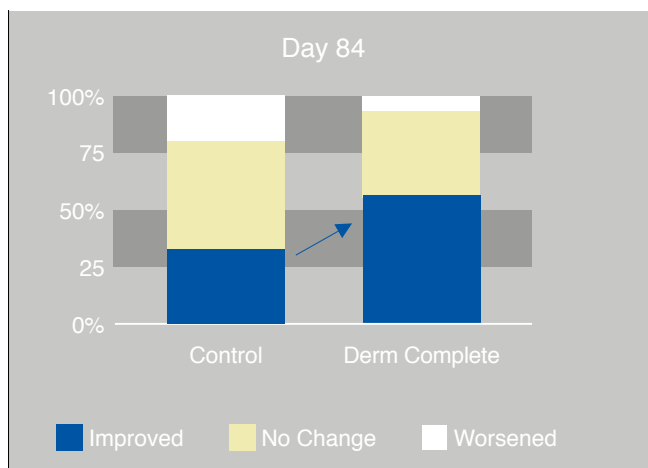
Significantly More Owners Reported Lower (Improved) Pruritus Visual Analog Scores (PVAS) After Feeding Derm Complete Compared with Control Food



Percentage of Dog Owners that Reported Less Scratching (Lower PVAS Scores) Upon Study Completion

A significantly greater proportion of owners (82% vs 60%) who fed Derm Complete to their dogs with canine atopic dermatitis reported lower scratching scores (PVAS, Figure 1) on a 0-10 scale of severity at the end of the study compared with study start than owners of dogs fed a control food ($P<0.05$).

Owners Reported Significantly Improved Sleep in Dogs Fed Derm Complete Compared with Dogs Fed the Control Food



Sleep Quality of Dogs Reported by Owners at Study Completion

A significantly greater proportion of owners (59% vs 32%) who fed Derm Complete to their dogs with canine atopic dermatitis reported an improved score for the question "my dog sleeps well" at study end compared with study start than owners of dogs fed a control food ($P<0.05$).

These results demonstrate that **Prescription Diet Derm Complete** provides significant benefits to dogs with atopic dermatitis when used as part of multimodal therapy.

Additional Significant Findings:

- There was a significant improvement in owner-reported score for “how much does your dog’s condition interfere with your or a member of your family’s sleep” after 2 months in dogs with atopic dermatitis fed Derm Complete compared with dogs fed a control food ($P<0.05$).
- At study completion, 8/10 veterinarians reported that they would recommend Derm Complete to a colleague.

Implications for Practice

These results demonstrate that Derm Complete is an important component of multimodal therapy for canine atopic dermatitis.

Supplementary Study Information

Subjects

- 47 client-owned dogs
- Mean age 6.4 years
- Previously diagnosed with atopic dermatitis and experiencing an active episode

Methods

Dogs with seasonal pruritus diagnosed by their attending veterinarian, at least 1-year-old, under veterinary care for canine atopic dermatitis and currently exhibiting clinical signs were recruited from general and specialty practices in 12 states throughout the USA for participation in an 84 day, randomized, double-blinded controlled study. Veterinary-reported canine atopic dermatitis lesion index (CADLI) scores (Figure 2) and owner pruritus visual analog scale (PVAS, Figure 1) were performed at study entry to assess dermatologic clinical signs and the study conformed with the 2018 COSCAD (Core Outcome Set for Canine Atopic Dermatitis trials) guidelines outlined by the veterinary dermatology profession.¹ Dogs had a veterinarian-assessed canine atopic dermatitis lesion index (CADLI) score $>8/50$ (Figure 2, less than 8 is considered normal) and an owner-reported Pruritus Visual Analog Score (PVAS) of $>3.5/10$ at enrollment (Figure 1, 1-10 scale where 0 represents no pruritus, 10 extreme pruritus), had to be free of infectious pyoderma, and not receiving monoclonal antibody therapy. Other medications were allowed provided they remained unchanged during the study period. Dogs were followed for a 21-day baseline period and then CADLI and PVAS were repeated. Dogs were then blocked based on CADLI scores and randomized to

(Prescription Diet Derm Complete) or Control Food for 63 days. The Test food was a complete and balanced dog food designed with nutrition to help manage allergy signs by promoting skin health and healing, normalizing the immune response, and supporting the skin’s natural barrier against allergens. Key nutrients include omega-3 and -6 fatty acids, bioactives and phytonutrients from herb and plant extracts, and eggs. This nutrition has been shown to help reduce allergic responses including licking, scratching, head shaking and skin redness in as little as 28 days in previous clinical studies.²⁻⁴ The control food was an adult maintenance food. Upon study completion, veterinarian-reported CADLI and owner-reported PVAS values were collected and compared with baseline. Analysis was linear mixed-models with diet, time, and diet x time as fixed-effects and a significance threshold of $P<0.05$ in SAS.

Figure 1

Pruritus Visual Analog Scale (PVAS)

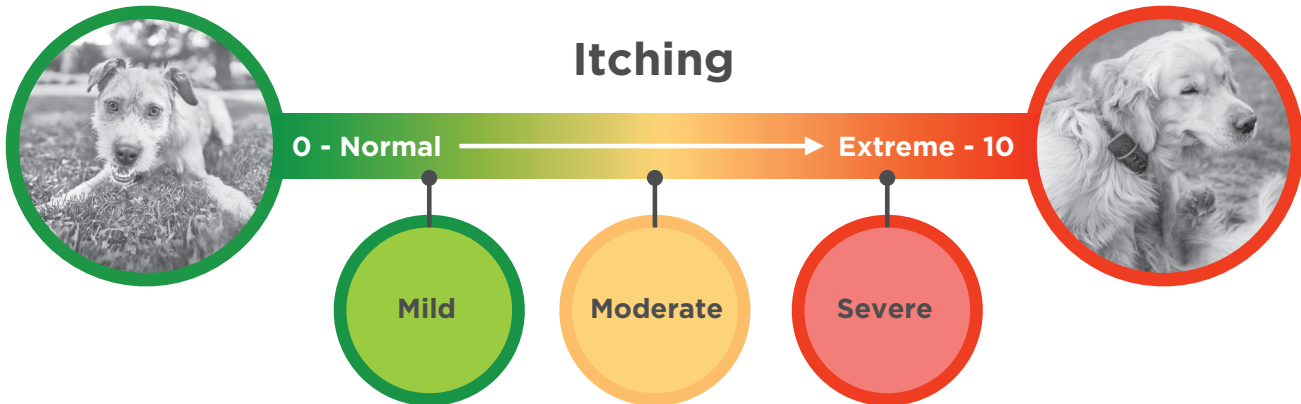


Figure 2

Veterinary Evaluations: The Canine Atopic Dermatitis Lesion Index (CADLI)

Body Region	Erythema Excoriation Erosion 0-5	Alopecia Lichenification Hyperpigmentation 0-5
Head & Pinnae		
Forefeet		
Hind Feet		
Ventral Thorax & Axillae		
Ventral Abdomen & Inguinal		
Sub-totals 0-25		
Total 0-50		

Key Conclusions

Prescription Diet Derm Complete is an effective component of multimodal therapy for canine atopic dermatitis and results in significant improvements in owner-reported scratching and sleep quality compared with the control food.



¹Olivry T, Bensignor, E, Favrot, C, et al. Development of a core outcome set for therapeutic clinical trials enrolling dogs with atopic dermatitis (COSCAD'18). *BMC Vet Res.* 2018(14):238.

²Wernimont, SM, Thompson, RJ, Mickelson, SL, et al. Use of accelerometer activity monitors to detect changes in pruritic behaviors: interim clinical data on 6 dogs. *Sensors.* 2018(18):249.

³Witzel-Rollins A, Murphy M, Becvarova I, Werre SR, Cadiergues MC, Meyer H. Non-controlled, open-label clinical trial to assess the effectiveness of a dietetic food on pruritus and dermatologic scoring in atopic dogs. *BMC Vet Res.* 2019;15(1):220.

⁴Jewell D, Gross K, Bednar G, et al. Dietary fatty acids, antioxidants and polyphenols affect cytokines and reduce skin erythema in dogs with atopic dermatitis, in *Proceedings.* European Society of Veterinary Dermatology 2017.

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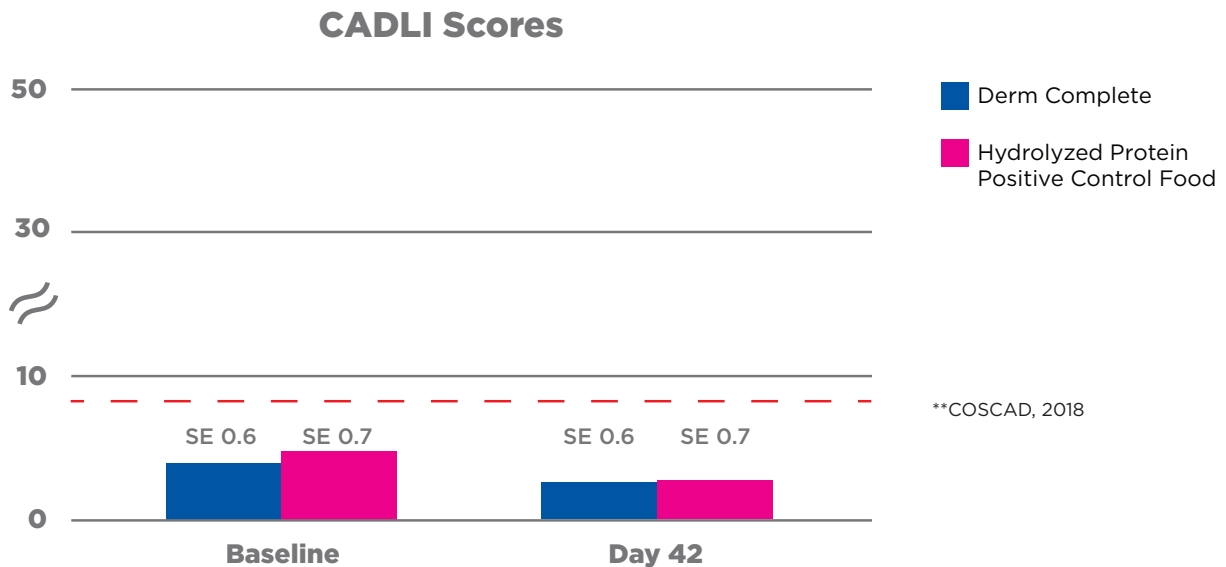
CLINICAL EVIDENCE REPORT

In a multi-center, blinded, controlled, longitudinal study client-owned dogs with well-controlled food allergies fed **Hill's Prescription Diet Derm Complete** demonstrated continued control of clinical signs.

Hill's Pet Nutrition, Inc. Data on file.

Results:

Veterinarian-Reported Canine Atopic Dermatitis Lesion Index (CADLI) Scores Were No Different from Baseline = Continued Control*



*Veterinarian assessments over times were not significantly different vs baseline or compared with control food ($P>0.05$)

**CADLI (Figure 1) score less than or equal to 8 (dotted line above) is normal (COSCAD, 2018).

These results demonstrate that **Prescription Diet Derm Complete** maintained control of clinical signs of food allergy in dogs previously well controlled on a therapeutic novel or hydrolyzed protein food and was as effective as a hydrolyzed protein therapeutic food when fed to food-allergic dogs in a **21-day study**.

Additional Significant Findings:

- Dogs with dermatological clinical signs noted, once transitioned from original novel or hydrolyzed protein therapeutic foods were few and similar in number between groups.
- There were no significant differences between foods or over time in the activity data collected from Hill's wearable collars, including no significant increases in scratching, shaking, or worsening of sleep quality behaviors.
- There were no differences in owner-reported control of scratching using the Pruritus Visual Analog Scale (PVAS, Figure 2), sleep and stool quality when food allergic dogs were fed Derm Complete compared with a hydrolyzed protein therapeutic food.
- There was a significant improvement in veterinarian reported skin healing scores in the United Kingdom study dogs fed Derm Complete after 21 days compared with dogs fed the hydrolyzed protein therapeutic positive control food ($P<0.05$).

Implications for Practice

These results demonstrate that Derm Complete provides excellent control of clinical signs of food allergy in dogs and therefore is an excellent first choice for dogs with suspected food or environmental allergies. Additionally, Derm Complete was associated with significant skin healing in food allergic dogs in as little as 21 days.

Supplementary Study Information

Subjects

- 57 client-owned dogs
- Mean age 6 years
- Previously diagnosed with food allergy, well controlled on a therapeutic novel or hydrolyzed protein therapeutic food

Methods

Dogs with a food allergy were recruited for two identical, randomized, double-blinded, controlled studies in the United States and United Kingdom to evaluate the effect of a test food (Prescription Diet Derm Complete), on food allergy-related signs over a 42-day period compared with a positive control food. The results of the two studies were similar and have been combined for analysis. The test food contained egg, omega-3, -6 and -9 fatty acids, and the control food a hydrolyzed animal protein. Dogs had been diagnosed by a food elimination trial, managed in general veterinary practice and were consuming a novel or hydrolyzed protein therapeutic food at the time of enrollment. Veterinary-reported canine atopic dermatitis lesion index (CADLI) scores (Figure 1) and owner pruritus visual analog scale (PVAS, Figure 2) values were performed at study entry to assess dermatologic clinical signs and conformed with the 2018 COSCAD (Core Outcome Set for Canine Atopic Dermatitis trials) guidelines outlined by the veterinary dermatology profession.¹ Dogs consumed their usual diet for the 21-day study and then CADLI and PVAS values were repeated. Dogs wore a collar-mounted activity monitor throughout the study. Machine learning-based behavior recognition algorithms

quantified the total duration of scratching (sec/day), shaking (sec/day), resting (hrs/day) and sleeping (hrs/day); sleep quality was evaluated with an algorithm based on the absence of night-time disturbance (0: highly disturbed sleep, 100: undisturbed sleep). The validated scratching and shaking algorithms have an accuracy >99%.^{2,3} Behaviors, CADLI and PVAS values were analyzed in SAS using linear mixed-models with diet, time, and diet x time as fixed-effects and a significance threshold of $P<0.05$. On Day 22 (end of baseline), dogs were randomly assigned to either Test Food (Prescription Diet Derm Complete dry food) or a positive control hydrolyzed protein therapeutic food (Royal Canin Ultamino canine dry food) until study day 42. Upon study completion, veterinarian-reported CADLI, owner-reported PVAS and behavioral assessments collected by the activity monitors were evaluated and compared with baseline. Analysis was linear mixed-models with diet, time, and diet x time as fixed-effects in SAS and was appropriately powered to detect significant differences between groups ($P<0.05$) with 80% power if any differences were to have existed. There were no significant differences between groups for all relevant measures.

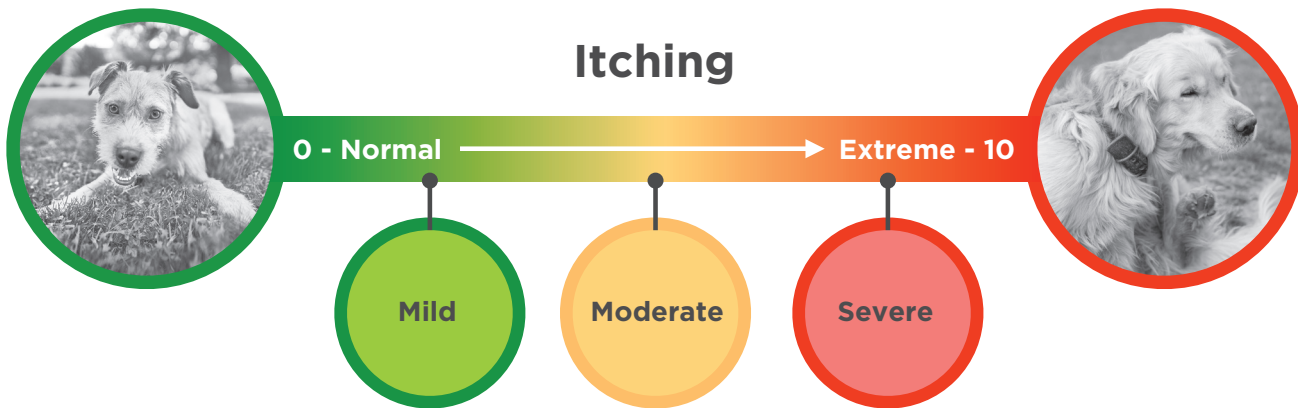
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Sub-totals 0-25		
Total 0-50		

Figure 2

Pruritus Visual Analog Scale (PVAS)



Key Conclusions

Prescription Diet Derm Complete is as effective as a hydrolyzed protein therapeutic food in maintaining control of clinical signs of food allergy in a 42-day study in food-allergic dogs as assessed by veterinarians, owners and use of objective wearable data.



¹Olivry T, Bensignor, E, Favrot, C, et al. Development of a core outcome set for therapeutic clinical trials enrolling dogs with atopic dermatitis (COSCAD'18). *BMC Vet Res.* 2018(14):238.
²Griffies, J.D., Zutty, J., Sarzen, M., et al. Wearable sensor shown to specifically quantify pruritic behaviors in dogs. *BMC Vet Res.* 2018(14):124.
³Wernimont, SM, Thompson, RJ, Mickelson, SL, et al. Use of accelerometer activity monitors to detect changes in pruritic behaviors: interim clinical data on 6 dogs. *Sensors.* 2018(18):249.
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