How a Fresh Food Diet Impacts Skin Microbiome

Freshpet sponsored this first-of-its-kind study that examined how eating fresh food could increase skin microbiome diversity in dogs.

Study summary:

A dog's skin helps protect them against environmental factors. The skin's bacteria microbiome can change depending on what the dog eats. This study explored whether dogs fed a fresh pet food diet for 30 days experienced changes in skin bacterial composition that were different from when they were fed dry dog food for 30 days. This study shed some light on how various pet foods impact the skin microbiome and whether supporting the skin through nutrition could improve the skin's defense systems.

Objective:

To compare the effects of dry kibble versus fresh, less-processed diets on the skin microbiome composition and diversity in healthy dogs.

Key takeaways:

Eating a fresh food diet resulted in dogs having increased bacterial population diversity over eating kibble. This suggests that new nutritional strategies can be useful to help establish healthier skin microbiota in dogs, reinforcing the skin's natural defense system through diet.

What we evaluated:

- **8 Dogs**
- **Freshpet Select Sensitive Stomach and Skin roll**
- **Commercial kibble diets**
- **Skin swab samples after each 30-day phase**

The experiment:

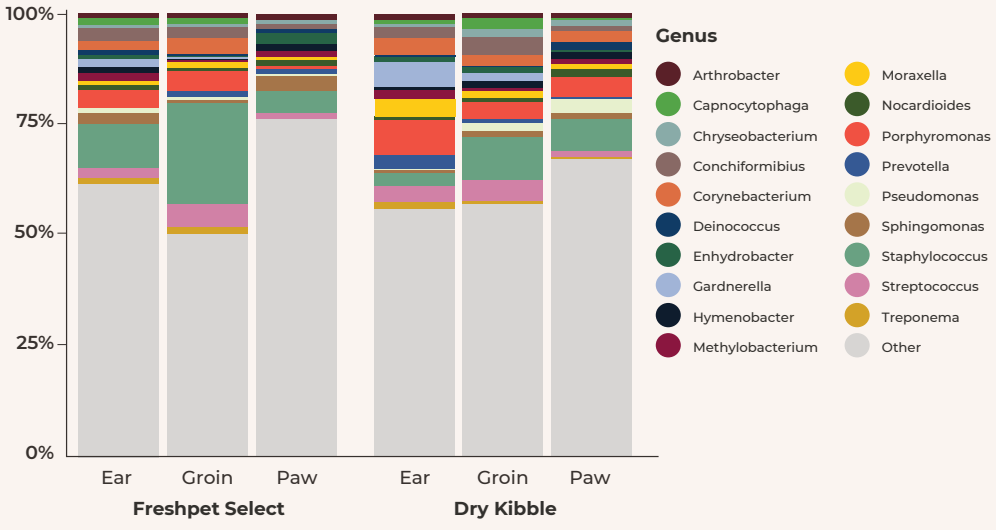
Eight dogs were fed the Freshpet Select Sensitive Stomach and Skin roll for 30 days by their owners followed by their regular dry dog food for the next 30 days. A 4-day transition period was implemented to switch diets.

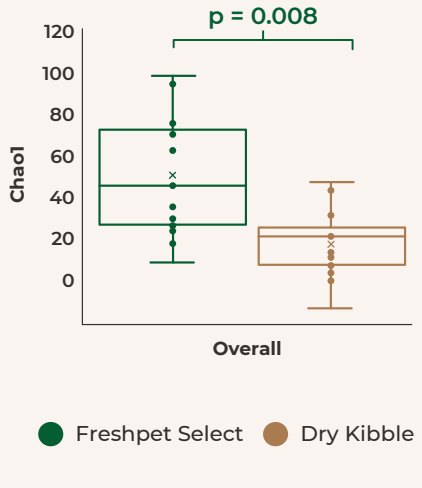
To measure changes in skin bacterial populations, skin swab samples were collected from the internal ear, interdigital area of the front paw, and the groin area on each dog following the 30-day feeding of fresh diets and dry diets.

Bacterial DNA was extracted and analyzed by a third-party lab to identify changes in skin microbiome diversity and quantity on the skin. Microbiome alpha diversity analyses were measured to assess how much the skin diversity changed and how many bacterial varieties were present.

Findings:

Alpha diversity on the skin was higher when dogs were fed the fresh diet compared to the dry food. Feeding fresh food to dogs increased the proportion of *Staphylococcus* and decreased *Porphyromonas* and *Corynebacterium* on the skin.





Change in skin microbiome genus (bar chart on the left) and alpha diversity (whisker plot on the right) of pet dogs fed Freshpet Sensitive Stomach & Skin versus dry foods.

Source: Fresh Food Consumption Increases Microbiome Diversity and Promotes Changes in Bacteria Composition on the Skin of Pet Dogs Compared to Dry Foods. Animals. 2022; 12(15):1881.

Read full study here:
bit.ly/SkinMicrobiomeStudy

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