



# Standard Process® Canine Dermal Support™

Skin disorders are the most common reason for pets to visit veterinarians. It is estimated that 15-25% of all practice activity is involved with diagnosis and treatment of skin and coat problems. The inflammation and dermatitis associated with allergic skin disease may be partially caused by abnormal essential fatty acid metabolism but there are certainly many other nutritionally derived dermatologic conditions. Nutrient deficiencies in amino acids, biotin, EFA, vitamins A and B6, pantothenic acid, and zinc can lead to keratinocyte degeneration.

Answers to skin problems are more than skin deep. Clinical signs are typically secondary to some underlying cause, often starting with the liver. It is in the management of the primary organ dysfunction wherein the solution to the dermatologic alterations lie.

Consider yet inflammatory disease of the ear in dogs. Despite the multitude of therapeutic remedies available, otitis continues to prove difficult to treat effectively. Once again, the majority of these canine patients have underlying allergic dermatitis.

It is for cases such as these where **Canine Dermal Support™** can be extremely effective. This product is a nutritional dietary supplement that combines animal tissue concentrates, whole food factors, and botanical ingredients to support skin health from a deep metabolic level by maintaining liver, adrenal, and intestinal function.

Dogs with chronic ear or skin conditions will benefit from Standard Process® **Canine Dermal Support™**. The family living with these dogs will be thankful. See what a difference it can make!

## Cases for Using Canine Dermal Support™

- ▲ Chronic Otitis
- ▲ Allergic Dermatitis
- ▲ Open Wounds
- ▲ Pododermatitis
- ▲ Chronic Lick/Acral Granulomas

### References:

- Hand et al: Small Animal Clinical Nutrition 4th Edition, *Mark Morris Institute*, 2000 Ch 26.
- Messinger L: First define underlying cause in canine skin infections, *DVM Magazine*, May 2000.
- Campbell KL et al: Cutaneous markers of hepatic and pancreatic diseases in dogs and cats, *Veterinary Medicine*, April 2003 p 306-314.
- Dunbar BL, Bauer JE: Metabolism of dietary essential fatty acids and their conversion to long-chain polyunsaturated metabolites; *JAVMA*, Vol. 220, No. 11, June 1, 2002.
- Jeromin A: Clues the skin yields to internal disease; *DVM Practices*, September 2002 p 16-21.
- Lloyd DL: Ecology of Skin: Balance and Disruption, *Compend Contin Educ Pract Vet*, Vol 19(3) 1997.
- Laflamme DP: Healthy Skin and Haircoat, The Importance of Nutrition, *Purina Research Report*, 2000.
- "Ready to Hear the Latest?": *Veterinary Forum*, July 2003.



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## What is Cytosol™ Extracts?

Dr. Royal Lee, the founder of Standard Process®, took great pains to analyze every aspect of plant and animal tissue before determining what was needed. As an engineer he designed many pieces of equipment that specifically enabled him to extract essential nutritional components from plants, animal organs, and the cytoplasm of glandular cells. Cytoplasm contains cellular factors such as enzymes, hormone precursors, and synergistic cofactors that are the biochemical building blocks essential to cellular metabolism in their respective tissue. Extracts of such can assist the day-to-day function of a system that is operating at sub-optimal level by supplying nutritional factors which the body can immediately use to its benefit.

*What people are saying about using Standard Process® products for their pets...*

*“Our Labrador Retriever Angus had already had constant ear infections and two ears surgeries by the age of 18 months and the doctors were talking about ablation. Once he started on Dermal Support his infections stopped! We won’t be without it.” -D. Myrick*

## What Does PMG™ Mean?

The letters “PMG” as seen on many product labels stands for protomorphogen™. In 1947, Dr. Royal Lee, the founder of Standard Process®, after years of research published his theories “Protomorphology: the Principles of Cell Auto-regulation.” “Proto” coming from prototype and “morphogen” for morphology. It is this which sets these products far apart from any other nutritional supplements.

A protomorphogen is a chromosome end product made in the nucleus of the cell. It is that cellular chromosome component that is responsible for morphogenic determination of cell characteristics. It is the smallest unit of the gene system that guides the cell into its hereditary form as it grows, develops, or repairs itself. While PMGs are generally thermostable up to 700 degrees centigrade, oxidation can destroy some of the growth influencing potential of PMG. Without sufficient PMG in its chromatic the cell degenerates, de-differentiates, becomes senile and dies.

So how is PMG regulated? These tissue specific mineral containing nucleoproteins are antigenic in nature and stimulate the response of natural tissue antibodies. The NTAs control the level of extracellular protomorphogen in blood and lymph. Normally the body maintains a balance between PMG and NTA. Situations where the NTAs exceed the peripheral circulating PMG levels can set up the condition for the natural tissue antibodies to actually attack the diseased organ or tissue itself! We can see many patients exhibiting this in auto-immune disease.

Introducing external tissue specific protomorphogen via the alimentary route can redirect the abundant natural tissue antibodies away from the organ. While PMG used in Standard Process® products is derived primarily from bovine and ovine species, a dog allergic to beef, for example, will not have the same allergic response to PMG because it is not protein derived from muscle.