

CANINE DERMAL SUPPORT

Canine Dermal Support is a nutritional supplement formulated with ingredients known as functional foods. These are foods that have been shown to benefit various organs and tissues in the body. The ingredients in **Canine Dermal Support** are a combination of plant and animal tissues, and provide nutritional support to key organs and glands like the liver, small intestine and adrenal glands, as well as the immune system. Support of these and other tissues can be beneficial in the management of a pruritic patient.

Indications for use:

- General skin health
- General support for itchy skin/allergy
- Chronic ear infections
- Patients with healing wounds/surgery
- Leaky Gut Syndrome

Systems Supported:

- **Adrenal Glands** – primary support for the adrenal glands mediated by adrenal PMG, adrenal cytosol, black currant juice, mushroom, and alfalfa.
- **Liver** – primary support for the liver is mediated with desiccated liver, liver PMG, *Silybum marianum*, *Taraxacum officinale*, liver fat extract, betaine, inositol, defatted wheat germ, nutritional yeast, bile salts, and beet root
- **Small Intestine** – primary support for the small intestine mediated with desiccated duodenum, desiccated jejunum, stomach, chlorophyll, veal bone PMG, parotid PMG, nutritional yeast, *Strombus gigas*, *Carthamus tinctorius*, brain and L-glutamine
- **Immune Tissues** – *Emblica officinalis*, spleen, calcium lactate, desiccated jejunum, bone meal, and veal bone PMG

Whole Food Ingredient Sources:

- **Tissue desiccates** – adrenal gland, liver, kidney, jejunum, duodenum, and bone
- **Vitamin A complex** – liver and kidney
- **Vitamin B complex** – nutritional yeast, oat flour, and defatted wheat germ
- **Vitamin C complex** – mushroom, adrenal gland, and black currant juice
- **Carotenoids** – carrot
- **Minerals** – alfalfa juice and beet leaf juice
- **Botanical phytonutrients** – *Silybum marianum*, *Taraxacum officinale*, *Carthamus tinctorius*, and *Emblica officinalis*
- **Protomorphogens** – adrenal gland, liver, parotid and veal bone

Individual Ingredients:

Bovine liver PMG – concentrated source of liver cell determinants for hepatic support

Bovine liver concentrates – work synergistically w/liver PMG to provide important cell substrates for hepatic cells and Kupffer cells. This is important for metabolic processes of the liver and bacterial toxin removal.

Liver fat extracts – provide substances that improve hepatic blood flow

Beet leaf juice – supports proper bile production and flow, preventing accumulation of toxic bile salts (Graff 2002, Yerushalmi 2001). Also, the major protein in bile is IgA, which plays a significant part in mucosal immunity in the bile and upper small intestine (Brown 1989).

Chlorophyll extracts – support intestinal mucosa, provides minor levels of detoxification

Alfalfa juice – source of bioavailable protein, vitamin A, C, E, K complexes, carotenoids, chlorophyll, calcium, potassium, phosphorus, isoflavonoids and triterpene saponoids.

Jejunum concentrates – provide cellular materials derived from the jejunum, and are used to improve cellular biochemistry of jejunum mucosa, submucosa, and their ability to respond to physiological demands.

Alfalfa, chlorophyll, jejunum extracts – important for maintaining the integrity of the intestinal mucosa for proper absorption.

L-glutamine – used as a primary energy source for enterocytes, important for maintaining mucosal integrity and tight junctions (Buchanan 1999). Considered a conditionally essential nutrient, and is essential for maintaining intestine mucosal integrity, metabolism, structure and function, and is a preferred energy source for enterocytes.

Parotid PMG – PMG extract from the parotid salivary glands. Offers direct support for the salivary glands, indirect support for the stomach, upper small intestines, and pancreas (McCull 1979, Frulloni 1999, Le 1947, Kamisawa 2003).

Bile salts – aids in preventing bacterial translocation, endotoxemia and bacterial overgrowth (Lorenzo-Zuniga V 2003).

Betaine hydrochloride – from beets, source of hydrochloric acid. Aids in acidification of gastric secretions which is critical for maintaining proper gastric and intestinal flora (Theisen 2000).

Nutritional yeast – provides a range of the whole vitamin B complexes that aid in nerve conduction and intestinal contractions.

Adrenal PMG – source of adrenal gland cell determinants. Used for support of the adrenal gland through improvement of the local nutritional environment (Lee 1947).

Adrenal cytosol extract – source of cytosolic components from cells of the adrenal gland, also provides critical cellular materials for proper cell metabolism.

Black currant juice – rich source of vitamin C complexes, also an excellent source of omega-6 essential fatty acids.

Mushroom – rich source of vitamin C and tyrosinase.

Carthamus tinctorius (Safflower) – contains compounds that have been shown to inhibit proinflammatory cytokine production (takii 2003).

Taraxacum officinale (Dandelion) – useful for its ability to stimulate the liver, as a diuretic, and for its cellular protection properties

Silibum marianum (Milk thistle) – contains flavanolignans, potent liver protecting substances, stabilizes liver cell membrane against injury, assists in cellular regeneration, antioxidant.

Emblica officinalis – rich source of bioflavonoids and vitamin C. Immune enhancing properties

Strombus gigas (Conch) – source of protein, amino acids, and trace minerals.

Calcium lactate – bioavailable source of calcium for muscle contraction, immune function.

Bone meal – provides cellular factors from immune cells in the marrow

Spleen – provides cellular materials from immune cells in the spleen

Oat flour – Vitamin A source, supports capillary integrity

Wheat germ – source of vitamin E complex, vitamin B complex, trace minerals, antioxidant