

CANINE RENAL SUPPORT

*Nutritional support of the kidney is designed to support the cellular health of the kidney, which can facilitate normal organ function (filtration, absorption, detoxification, mineral reclamation, hormone production, fluid balance). **Canine Renal Support** provides important nutritional factors for direct renal support and also for indirect support of associated organs and tissues (liver, heart, bone marrow, circulation, nervous tissues). This multidimensional support using functional foods can be of critical importance in successfully managing these renal patients, providing the nutrients necessary to support regeneration, repair and detoxification.*

Indications for use:

- Elevated renal blood values
- Age-related renal changes
- Polyuria/polydypsia
- Reduced hepatic function
- Renal injury
- Liver disease

Systems Supported:

- **Kidney** – primary support for the kidney mediated with kidney, buckwheat leaf juice and seed, kidney PMG, mushroom, carrot, flaxseed oil and extract of *Rhizopus oryzae*
- **Liver** – secondary support for the kidney mediated through support of the liver with desiccated liver, ribonucleic acid, orchic extract, nutritional yeast, rice bran, oat flour, pea vine juice, manganese glycerophosphate, allantoin, wheat germ oil, beet leaf and beet root
- **Vasculature and blood forming tissues** – secondary support for the kidney mediated through support of these tissues with buckwheat leaf juice and seed, veal bone PMG, mushroom, flaxseed oil, black currant juice, chlorophyll, and alfalfa juice
- **Autonomic nervous system** – tertiary support for the kidney through support of the autonomic nervous system with bone PMG and parasympathetic tone with alfalfa juice

Whole Food Ingredient Sources:

- **Protomorphogens** – kidney, veal bone, pituitary, thyroid
- **Tissue desiccates** – kidney, liver, adrenal, and spleen
- **Vitamin A complexes** – liver and kidney
- **Bioflavonoids** – buckwheat leaf juice and seed
- **Vitamin B complexes** – rice bran, nutritional yeast, oat flour, and defatted wheat germ
- **Vitamin C complexes** – adrenal, black currant juice, and mushroom
- **Vitamin E complexes** – pea vine juice, wheat germ oil
- **Carotnoids** – carrot
- **Minerals** – alfalfa juice, kelp, and *Strombus gigas*
- **Fatty acids** – flaxseed oil and black currant seed oil

Individual Ingredients:

Bovine kidney – provides nutritional support to kidney, critical in the process of replenishing depleted cellular supplies of key factors.

Kidney Bean Extract – supports arginase function in the kidney.

Buckwheat leaf juice and seed – Source of bioflavonoids. Provide general benefits for healing and reducing inflammatory conditions. The bioflavonoids are useful for improvement of capillary fragility and promotion of normal arterial elasticity (Berger, 1992). A major source of building blocks and supportive nutrients for the heart and other vascular structures.

Oat flour – Rich in vitamin A, also provides vitamins B and C, supports capillary integrity.

Bovine liver - liver support, provides important cell substrates for hepatic cells and the Kupffer cells. Important both for the metabolic processes of the liver such as histamine detoxification and for particulate and bacterial toxin removal (increased intensity in Leaky Gut Syndrome).

Ribonucleic acid – nucleic acid occurring in cell cytoplasm and the nucleolus, supports capillary circulation.

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

Veal Bone PMG™ Extract – supplies connective tissue support for all the fibrous parenchyma of the kidneys as well as bone marrow support.

Bovine orchic extract – promotes the penetration of nutrients into tissue and various tissue compartments by its hyaluronidase activity.

Pea vine juice – rich source of whole vitamin E complex. Important antioxidant.

Beet root - contains betaine, glutamine, high levels of folic acid, and triterpene saponins. Important methyl group donor, facilitates Phase II hepatic detoxification.

Bovine and ovine spleen – provides cellular materials from immune cells in the spleen, rich in super oxide dismutase (SOD), provides nutrient support for the lymphatic system and the cardiovascular system.

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

Bovine Kidney PMG™ Extract – supports the renal tissue and normalizes its repair rate, improves local nutritional environment of kidney cells.

Mushroom powder - rich source of vitamin C and tyrosinase

Rice bran – provides whole vitamin B complex, important for cell energy reactions.

Bovine thyroid PMG extract – Protomorphogen extract from thyroid glands. Offers direct support for the thyroid gland.

Carrot – supplies extra carotenoid sources to provide vitamin A precursors.

Flaxseed oil – contains alpha-linoleic acid, an omega-3 fatty acid that benefits multiple body systems including the immune system, integument, and cardiovascular system.

Wheat germ oil – rich source of whole vitamin E complex

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

Black Currant Seed Oil – an excellent source of omega-6 fatty acids, such as gamma linoleic acid.

Kelp – Seaweed, a good source of, iodine, trace minerals

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

Allantoin – a substance found in amniotic fluid and certain plants that is reported to promote natural cellular regeneration.

Bovine pituitary PMG – Protomorphogen extract from pituitary glands. Offers direct support for the pituitary gland and signaling for the pancreas (Lee, 1947). Pituitary adenylate cyclase activating polypeptide has been shown to have a promoting effect on pancreatic insulin secretion (Yamaguchi, 2001).

Chlorophyll extract - support intestinal mucosa, provides minor levels of detoxification

Manganese Glycerophosphate – essential trace mineral important for skeletal and cartilage formation, structural nutrient

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).

Rhizopus oryzae – a mold grown on *Tillandsia usneoides* and beet root as a source of enzymes.