



# Standard Process® Canine Thyroid Support™

The thyroid gland is under the control of the master endocrine organ, the pituitary gland. Vitamin deficiency will hasten the degeneration of the endocrine system and the aging process. Crops grown on selenium deficient soil will predispose to hypothyroidism. Selenium is necessary to move the thyroid hormone out to the tissue level. Selenium deficient animals will show clinical signs of hypothyroidism while the blood levels appear normal.

Animals with autoimmune thyroid disease have generalized metabolic imbalance and often have associated immunological dysfunction. These dogs in particular need to be protected from unnecessary toxins, drugs, and chemicals and their nutritional status should be optimized.

Balancing the functional status of all the endocrine organs involved with the thyroid gland is the goal of Canine Thyroid Support™. Ingredients such as *Eleutherococcus senticosus*, an herb, has a normalizing effect on the thyroid gland and supports its function by supporting the adrenal glands. Protomorphogen™ extracts from bovine thyroid gland, adrenals and the heart maintain appropriate cellular function. Additional bovine liver and adrenal glands contain important cellular substrates for the corresponding tissues. Whole glands such as these, extracted from animal sources and concentrated, provide a food product possessing a high biochemical activity. Glandulars can elicit a specific physiological (nutritional) effect. Whole vitamin complexes and chelated minerals further support the nutritional needs of the body related to thyroid function.

**“... We know that endocrines are only able to perform their necessary functions when a supply of vitamins is available to them.”**

**- Dr. Royal Lee**

Improving the function of the natural internal thyroid gland and hormone levels may be optimal to administering a replacement that may further reduce any residual hormone production. When making a decision regarding thyroid treatment for a dog with impaired thyroid hormone function, consider restoring a nutritional and glandular balance with Standard Process® **Canine Thyroid Support™**.

## Cases for Standard Process® Canine Thyroid Support™

- General thyroid support
- Hyperthyroid and hypothyroid conditions
- Patients with thyroid auto-antibodies
- Adrenal insufficiency, chronic immune system stress

### References:

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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 organelles plus nutrients, 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 all these nutritional factors which the body can immediately use to its benefit.

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

**“I only had to be sold on the quality and importance of Standard Process once. The rest was proven to me by the change in my pet’s health and vitality.”**

**- C. Bowman**

## 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°C, 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 (NTA). The NTAs control the level of extracellular protomorphogen in blood and lymph. Normally the body maintains a balance between PMG and NTA. When the NTAs exceed the peripheral circulating PMG level, the situation exists where the natural tissue antibodies could actually attack the diseased organ or tissue itself! Hence the need for PMGs. 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.