

K12

THYROXAL™

Used to Support Healthy Thyroid Function

USE OF PRODUCT

THYROXAL™ is a broad spectrum supplement that contains the highest quality glandular, herbal, and nutritional compounds to support healthy thyroid hormone physiology. This product contains compounds to support T3 and T4 production, as well as nutrients to support healthy thyroid hormone receptor binding. Other compounds are included in this formula to support healthy energy-producing metabolism that is very useful during low thyroid function.

KEY INGREDIENTS RESEARCH COMMENTARY

PORCINE THYROID GLANDULAR is derived from Argentina in which the animals are range fed and are free of hormones and chemicals and exceed USDA guidelines. The glandulars are kept clean and healthy. This provides high quality glandular tissue that contains the needed amino acids, fatty acids, co-enzymes, and other supporting material for the thyroid. Porcine glandular tissue, as opposed to other types of tissue such as bovine, is the best source to support the thyroid.

WITHANIA SOMNIFERA (ASHWAGANDHA) contains compounds that have been shown to have a stimulatory impact on both T3 and T4 hormone synthesis. It also has been shown to reduce hepatic lipid peroxidation and increase the activity of superoxide dismutase and other antioxidant systems.^{1 2} This is important because numerous studies have demonstrated that peroxidation and oxidative stress significantly alters thyroid metabolism.^{3 4 5 6 7 8} Withania somnifera also exerts adaptagen-like glucocorticoid activity which makes it helpful in thyroid imbalances that are negatively influenced by the stress hormone cortisol.^{9 10} Cortisol has the potential to lower TSH, suppress peripheral T3 conversion, increase inactive rT3 production, and antagonize the effects of thyroid signaling at the genome.¹¹ Since Withania somnifera has demonstrated abilities to increase T3 and T4 hormone levels, decrease peroxidation and act as an adaptagen to modulate the release of cortisol it should always be considered as a powerful agent to use when supporting the thyroid.

VITAMIN A - Once thyroid hormones bind to receptor sites, a series of biochemical reactions called intercellular transduction are initiated. This intercellular transduction response carries the message of binding to the nuclear receptors. Once the nuclear receptor has been activated, it will respond by producing proteins that express enhanced metabolic rate and energy production. Vitamin A appears to influence thyroid hormone nuclear receptors. Thyroid hormone nuclear transcription activation involves vitamin A dependent, retinoic acid-specific receptors.¹²

VITAMIN D - Elevated autoimmune thyroid antibodies are a very common pattern associated with the etiology of thyroid disorders. Vitamin D has shown to be an effective immune modulator and even shown to suppress autoimmune activity.¹³

SELENIUM is the major cofactor for the enzyme 5'deiodinase which is responsible for converting T4 into T3 as well as degrading rT3. Studies have confirmed lower production T3 in individuals with lower selenium status.^{14 15 16} Numerous studies have demonstrated increased T3 synthesis as well as decreased rT3 production with selenium.^{17 18 19 20 21}

ZINC - It has been shown that low zinc status compromises T3 production.²² Studies have also demonstrated that zinc supplementation improves thyroid hormone production.^{23 24 25 26} These effects may be due to the cofactor role zinc plays with type I 5'deiodinase. In addition, zinc may play a role in reducing thyroidal antibodies.²⁷

*Statements in this flyer have not been evaluated by the Food and Drug Administration.
This product is not intended to diagnose, treat, cure, or prevent any disease.*

Supplement Facts

Serving size 1 capsule
Servings per container 90

Amount Per Serving	% Daily Value	
Vitamin A (as retinyl palmitate)	1000 IU	20%
Vitamin D (as cholecalciferol)	100 IU	25%
Riboflavin	20 mg	1176%
Niacin (as niacinamide)	15 mg	75%
Vitamin B6 (as pyridoxal 5 phosphate)	5 mg	250%
Magnesium (as mag. citrate)	30 mg	7%
Zinc (zinc glycinate)	10 mg	66%
Selenium (as l-selenomethionine)	20 mcg	28%
Copper (as copper gluconate)	200 mcg	10%
Manganese (as mang. gluconate)	5 mg	250%

Bromelain (plant enzyme)* 350,000 FCC •
 Ashwagandha root* 275 mg •
 Thyroid Glandular (bovine)* 75 mg •
 Proprietary Blend: 33 mg of Betaine HCl*, Co-Enzyme Q10*, Cellulase (plant enzyme)*, Peptidase (plant enzyme)*, Lipase (plant enzyme)*.
 *Daily Value (DV) not established.

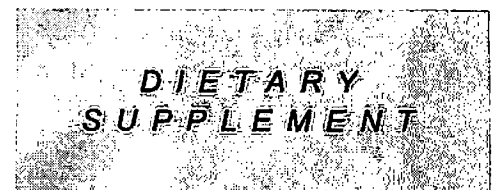
Other ingredients: gelatin (capsule), silicon dioxide.

DIRECTIONS

Take 1 to 2 capsules, 3 times a day or as directed by your healthcare practitioner.

Formula Info Page

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OTHER COMPOUNDS THAT SUPPORT THYROIDAL RESPONSE

This formula also contains important cofactor nutrients to support energy production systems such as mitochondrial metabolism, citric acid cycle function as well as other nutrients to optimize antioxidant compounds such as superoxide dismutase. Supporting these systems will support the metabolism after thyroidal proteomic activation.

OTHER PRODUCTS TO CONSIDER

Other products can be used in conjunction with Thyroxal™ to support thyroid function. Thyro-CNV™ (K09) is a broad spectrum supplement used to support healthy peripheral thyroid metabolism of T4 into T3. Super EFA Complex™ (K08) supplies the thyroid with the essential fatty acids required for thyroid metabolism. Progestaid™ (K04) helps support progesterone metabolism in females which is critical for the support of thyroid peroxidase activity. Estrovite® (K05) can be used to support estrogen levels. Elevated cortisol can suppress the conversion of T4 into T3. AdrenaCalm™ (K16) can be used to support healthy cortisol levels. Metacrin-DX™ (K10) can support healthy thyroid hormone detoxification. Altered thyroid hormone detoxification can cause inactive detoxification byproducts that can bind to thyroid receptor sites.

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