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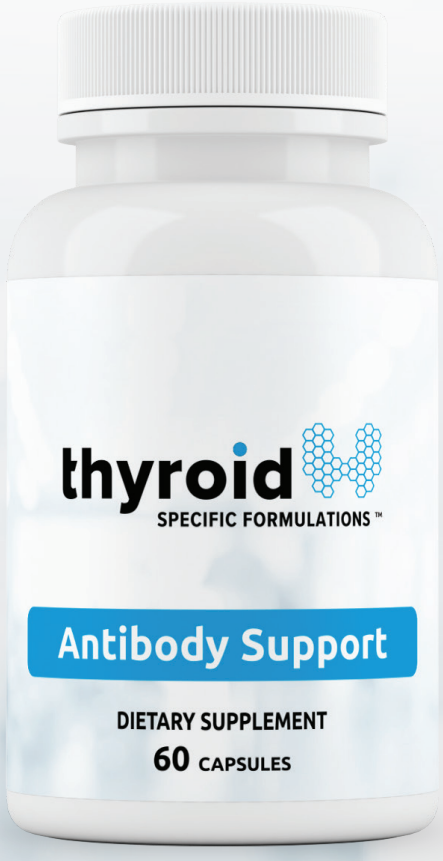
Antibody Support



Clinical Applications

- Supports protocols to lower thyroid antibodies
- Engineered to reduce symptoms associated with elevated thyroid antibodies
- Benefits efforts to improve repair of existing thyroid cells

Healthy Immune Response

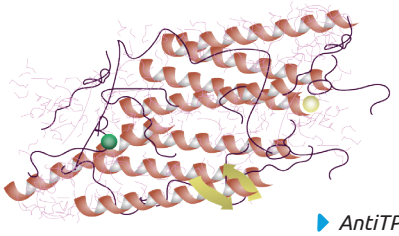
Antibody Support is a thyroid-specific formulation made to reduce the thyroid antibodies found in Hashimoto's Thyroiditis and Graves' Disease. The formula is a synergistic blend of essential nutrients, vitamin-like isomers, and botanical extracts. All of the ingredients have been clinically proven in human studies to safely reduce thyroid antibodies.

Thyroid antibodies are proteins produced by immune cells that target normal thyroid structures.

Thyroid antibodies include anti thyroperoxidase (AntiTPO), anti-thyroglobulin (AntiTg), and thyrotropin receptor antibodies (TSHAb), including thyroid-stimulating immunoglobulins (TSI). These antibodies correlate with disease onset and disease progression[1] for Hashimoto's Thyroiditis, Graves' Disease, and Graves' Eye Disease.

Even in those with normal thyroid levels, thyroid antibodies can relate to medical conditions such as infertility[2] and cardiovascular disease[3]. They may be associated with symptoms including:[4]

- Fatigue
- Joint pain
- Muscle pain
- Dry eyes
- Poor sleep
- Hair thinning



AntiTPO

Reduction of Thyroid Antibodies by Nutraceuticals

Given the harm from thyroid antibodies, researchers have investigated many natural compounds that may help reduce them. Selenium, inositol, and nigella have all been shown to lower thyroid antibodies to a clinically significant degree through multiple, high-quality human studies.

Selenium

Selenium is an essential trace mineral. All aspects of thyroid function require an adequate supply of selenium. Selenium is also essential for the formation of the family of deiodinase enzymes that regulate peripheral thyroid hormone metabolism.[5]

How it Lowers Thyroid Antibodies

Selenium helps the thyroid make glutathione, the antioxidant that protects the thyroid against oxidative damage from iodine. Thyroid antibodies elevate when the damage to the cells escalate.[6]

Human Clinical Trials

Several human studies have shown selenium supplements can lower thyroid antibodies.

In one study in Germany, the use of selenium supplements for three months significantly lowered TPO-Ab, and improved the appearance of thyroid tissue on ultrasound.[7]

Group	Before	After	Significance	% Change
TPOAb				
Verum	904±205	575±146	*P*=0.013[a]	-36
Placebo	1090±277	959±267	*P*=0.95	-12
TyAb				
Verum	1507±390	1375±484	*P*=0.33	-9
Placebo	1089±255	742±161	*P*=0.015[a]	-32

[a]Significant decrease (Wilcoxon's matched pairs test).

In a related French study, participants were assigned to take selenium or a placebo. While taking the placebo, thyroid antibodies continued elevating. Yet those taking selenium saw their TPO-Ab fall significantly.[8]

Graves' Disease

Selenium supplementation may also improve autoimmunity in Graves' disease.

Selenium levels have been shown to be inversely related to the antibodies associated with Graves' disease. People with Graves' and higher selenium levels have a higher rate of spontaneous relapse.[9] Furthermore, those given selenium supplements show a faster response to thyroid-lowering medications.[10]

Inositol

Inositol is a dietary sugar that acts like a B-vitamin. It is also known as Vitamin B-8.[11] Inositol comes in several different forms which are called isomers. These include myo inositol and D-chiro-inositol. Products labeled 'inositol' contain a blend of biologically active isomers as found in whole foods.

How it Lowers Thyroid Antibodies

Inositol is essential for proper TSH signaling. In the thyroid, a lack of inositol can impair the hormone biosynthesis and secretion. TSH receptors are inositol dependent molecules.[12]

Human Clinical Trials

In a study of 48 people with Hashimoto's disease, a supplement containing inositol and selenium was tested to see if it could improve thyroid function. They were tracked for a period of 6 months and compared against a group that received a placebo.

Over the course of study, those taking inositol and selenium saw marked improvement. Their TSH levels lowered by 31% and their thyroid antibodies improved dramatically. TPO-Ab reduced by 42% and Tg-Ab came down by 42%. Roughly half saw their Tg-Ab levels go into full remission. None of these benefits showed up in the control group and no significant side effects were noted.[13]

N	Nigella Sativa *N*=20	Placebo *N*=20	*P*†
TSH (mIU/1)			
Before	6.42 ± 3.86	8.14 ± 7.28	0.35
After	4.13 ± 2.35	8.27 ± 7.21	0.02
P‡	0.03	0.40	
T3 (mmol/1)			
Before	0.92 ± 0.27	1.18 ± 0.36	0.017
After	1.06 ± 0.34	1.16 ± 0.35	0.39
P‡	0.008	0.15	

N	Nigella Sativa *N*=20	Placebo *N*=20	*P*†
T4 (mmol/1)			
Before	8.07 ± 2.56	7.97 ± 3.11	0.91
After	8.89 ± 1.43	7.63 ± 2.23	0.04
P‡	0.21	0.32	
Anti-TPO (IU/ml)			
Before	294.55 ± 210.05	278.10 ± 170.77	0.78
After	147.99 ± 158.33	274.30 ± 167.20	0.01
P‡	0.019	0.28	

Nigella

Nigella is a seed that has been used for thousands of years as a food and a source of medicinal oil. It has been used in food-quantity dosages for thousands of years without adverse effects. The FDA lists it with other culinary herbs and spices in its list of Generally Recognized as Safe ingredients.[14]

How it Lowers Thyroid Antibodies

From numerous clinical trials, Nigella is known to have antioxidant, anti-inflammatory and immune-modulatory properties.[15] It has been shown to have protective properties specific to thyroid cells.[16]

Human Clinical Trials

Multiple human placebo controlled studies have shown that nigella can help people with thyroid disease. In the first study, 100 people were recruited to receive nigella or a placebo for eight weeks.

By the end of the eight weeks, those given nigella saw their thyroid function improve and their thyroid antibodies lower by an average of 50%.[17]

In addition to lower antibodies, the participants given nigella saw improved (lower) TSH levels, increased T3 and a reduction in risk markers for thyroid cancer.

In other studies, nigella has been shown to help those with thyroid disease lower their cholesterol, lose weight,[18] and reverse fatty liver disease.[19]

Supportive Strategies for Antibody Reduction

Antibody Support is best used as part of a comprehensive protocol aimed to reduce thyroid antibodies. Additional therapies should include:

- Thyroid Specific Multivitamin
- Iodine regulation as per the book The Thyroid Reset Diet
- Weight loss, if indicated
- Use of Natural Desiccated Thyroid over synthetic medication for those on thyroid medication

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Directions

2 capsules once daily with food or as recommended by your health care professional.

Does Not Contain

Antibody Support does not contain Iodine, gluten, corn, yeast, soy, GMO's, dairy products, artificial colors, artificial flavors, or preservatives.

Supplement Facts

Serving Size 2 Capsules
Servings Per Container 30

Amount Per Serving		%DV
Selenium (as L-Selenomethionine)	50mcg	91%
Inositol	500mg	†
Nigella (Black Cumin) Seed Powder	100mg	†

† Daily Value not established.
†† Daily Values based on a 2,000 calorie diet.

Other Ingredients: Gelatin (Capsule), Rice Flour, Magnesium Stearate

Cautions

Timing

- TSF Supplements must be taken at least an hour after thyroid replacement medication.

Dosage Modification

- Those taking TSF supplements while on thyroid replacement medication (hypothyroidism, Hashimoto's) or thyroid suppression therapy (Graves' Disease) are advised to monitor thyroid levels closely. When thyroid antibodies reduce, some need decreases or other adjustments made to their medication.

Medication Interactions

- Interactions can occur with many nutraceutical ingredients and prescription medications. If you are on prescription medication, please check with your doctor or pharmacist for specific guidance.

Allergy Warning

- TSF products are contraindicated in individuals with a history of hypersensitivity to any of its ingredients.

Pregnancy Warning

- If pregnant, nursing, an organ transplant recipient, or have multiple sclerosis, do not use TSF Products unless on the advice of and under the direct supervision of a health professional.

Side Effects

Selenium

- Adults' combined dose of supplemental selenium should not exceed 600 mcg. Above this dose it can be less effective and may raise the risk for selenosis.

Inositol

- Antibody Support contains 500 mg of Inositol per serving. At doses above 12,000 mg daily, some report gastrointestinal side effects from inositol such as gas and bloating.

Nigella

- Antibody Support contains 100 mg of Nigella per serving. When Nigella is given in doses over 5000 mg daily for 3 months, some report nausea and bloating.

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