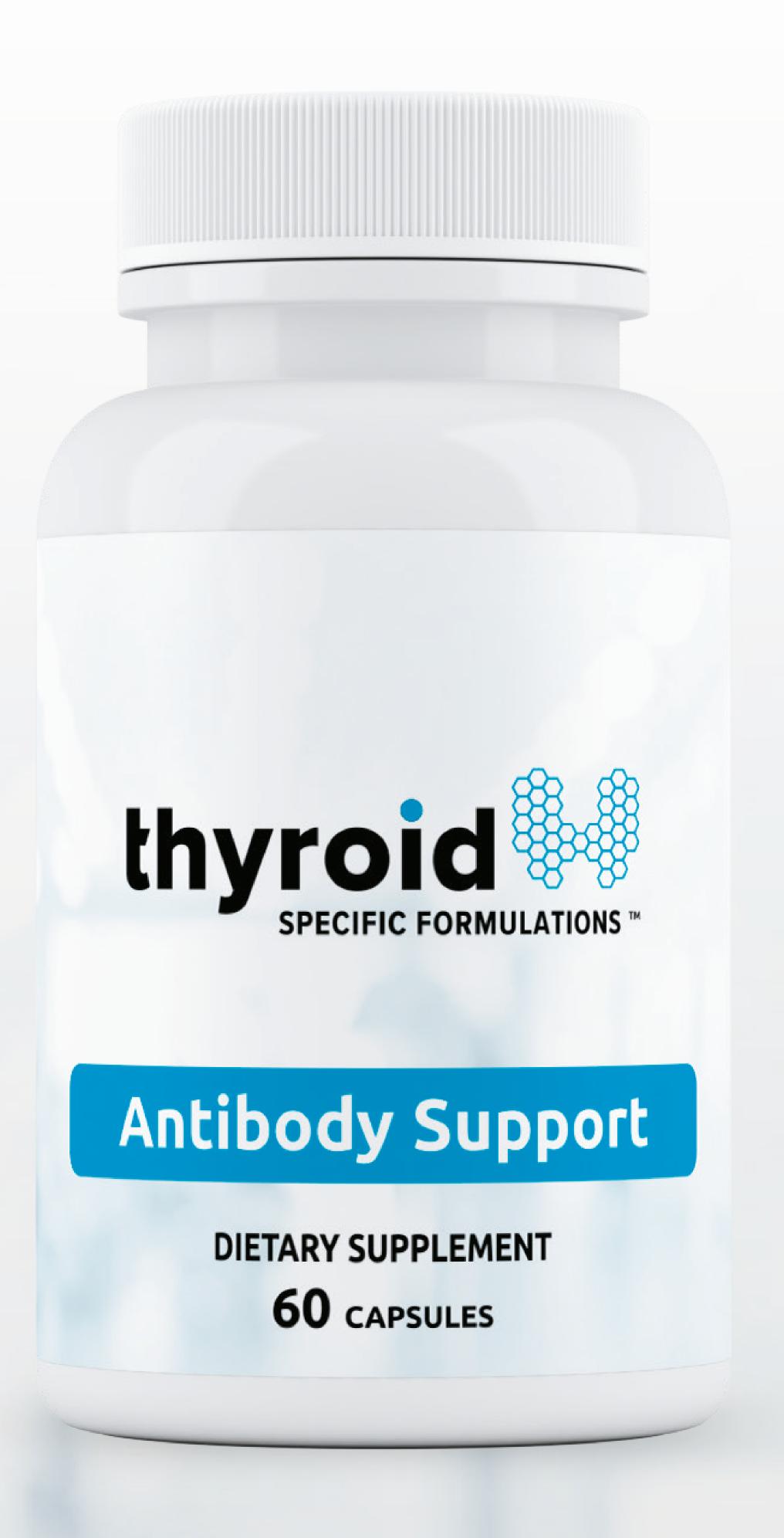


# Antibody Support



# 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

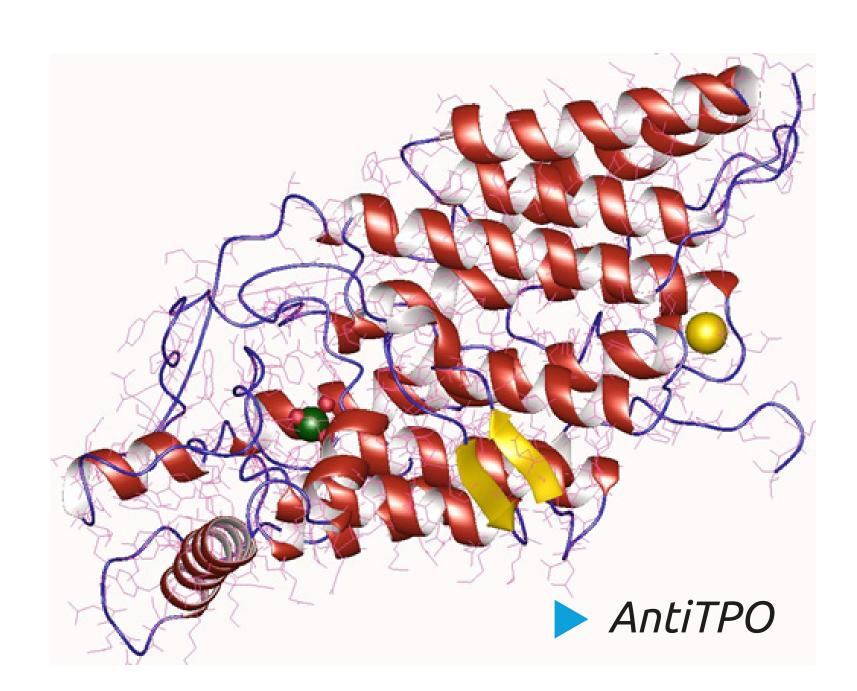
# Healthy Immune Response

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<sup>1</sup> 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<sup>2</sup> and cardiovascular disease<sup>3</sup>. They may be associated with symptoms including:<sup>4</sup>

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



# Reduction of Thyroid Antibodies by Nutracuticals

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.

# Cordyceps

Cordyceps is a genus of medicinal fungi long valued in traditional Chinese and Tibetan medicine. It was historically reserved for emperors and used to support stamina, respiratory function, and immune resilience. While wild-harvested *Cordyceps sinensis* remains rare, most modern supplements use *Cordyceps militaris*, a cultivated species with consistent levels of active compounds.<sup>5</sup>

Cordyceps is considered an adaptogen, supporting the body's stress response and energy metabolism. Clinical and preclinical studies suggest it may improve fatigue, enhance oxygen utilization, and support athletic performance.<sup>2</sup> It has also been studied for its effects on respiratory health, with evidence pointing to reduced airway inflammation and improved lung function.<sup>2</sup>

# How it Lowers Thyroid Antibodies

Cordyceps contains key bioactive compounds—including cordycepin, adenosine, and polysaccharides—that regulate immune activity and reduce inflammatory signaling. Animal and in vitro studies show that Cordyceps lowers the expression of cytokines such as TNF- $\alpha$ , IL-1 $\beta$ , IL-6, and IFN- $\gamma$ , which are involved in thyroid tissue damage and antibody production.<sup>3</sup>,<sup>4</sup> These effects suggest Cordyceps may help attenuate the autoimmune processes characteristic of Hashimoto's thyroiditis.



### Human Clinical Trials

A 2023 meta-analysis reviewed 14 randomized controlled trials involving 1,014 individuals with Hashimoto's thyroiditis. All studies were conducted between 2015 and 2021. Participants were either hypothyroid (n = 675) or euthyroid (n = 339), with interventions lasting 8 to 28 weeks. Cordyceps was administered as an adjunct to levothyroxine or a low-iodine diet. Control groups received these same therapies without Cordyceps.

Patients receiving Cordyceps experienced statistically significant improvements in immune and thyroid-related markers.<sup>5,6</sup>

Key Findings<sup>6</sup>

- **TPO antibodies:** Mean reduction of 272 IU/mL
- TG antibodies: Mean reduction of 258 IU/mL
- TSH: Mean reduction of 0.54 mIU/L
- Free T4: Mean increase of 0.66 pmol/L
- Inflammatory markers: Significant reductions in TNF-α, IL-2, and IL-6

Antibody reductions were seen in both hypothyroid and euthyroid participants. FT4 and TSH changes were more prominent in hypothyroid groups. These findings support Cordyceps' role as an immunomodulatory agent in the management of autoimmune thyroid conditions.

Cordyceps was well tolerated across all trials, with no serious adverse events reported.<sup>5</sup>

# Inositol

Inositol is a dietary sugar that acts like a b-vitamin. It is also known as Vitamin B8.6 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.<sup>7</sup>

### 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.<sup>8</sup>

# 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.<sup>9</sup>

### **Human Clinical Trials**

From numerous clinical trials, Nigella is known to have antioxidant, anti-inflammatory and immune-modulatory properties.<sup>10</sup> It has been shown to have protective properties specific to thyroid cells.<sup>11</sup>

### **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%.12 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.

#### Table 3

Metabolic parameters in treatment groups before and after intervention.

	Nigella Sativa <i>N</i> =20	Placebo N=20	<b>P</b> †			
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 <sup>+</sup> <sub>+</sub>	0.03	0.40				
T3 (mmol/1)						
Before	$0.92 \pm 0.27$	0.27 1.18 ± 0.36				
After	1.06 ± 0.34	1.16 ± 0.35	0.39			
P‡	0.008	0.15				

N	Nigella Sativa <i>N</i> =20	Placebo <i>N</i> =20	<b>P</b> †			
T4 (mmol/1)						
Before	8.07 ± 2.56	$7.97 \pm 3.11$	0.91			
After	8.89 ± 1.43	$7.63 \pm 2.23$	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 <sup>+</sup> <sub>+</sub>	0.019	0.28				

In other studies, nigella has been shown to help those with thyroid disease lower their cholesterol, lose weight,<sup>13</sup> and reverse fatty liver disease.<sup>14</sup>

### 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.<sup>5</sup>

### 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.<sup>6</sup>

### 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.<sup>7</sup>

Group	Before	After	Significance	% change
TPOAb				
Verum	904 ± 205	575 ± 146	P = 0.013 <sup>a</sup>	-36
Placebo	1090 ± 277	959 ± 267	P = 0.95	-12
TgAb				
Verum	1507 ± 390	1375 ± 484	P = 0.33	-9
Placebo	1089 ± 255	742 ± 161	P = 0.15 <sup>a</sup>	-32

<sup>&</sup>lt;sup>a</sup> 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.<sup>8</sup>

### 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

# 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

# Antibody Support Directions

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

# Does Not Contain

Antibody Support does not contain lodine, 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	†
Organic Cordyceps (Cordyceps sinensis) (Mycelium)	500mg	†
Nigella (Black Cumin) Seed Powder	100mg	†
† Daily Value not established. †† Daily Values based on a 2,000 calorie diet.		

### Side Effects

### Cordyceps

Cordyceps was well tolerated across all 14 randomized controlled trials. No serious adverse events were reported. Minor side effects were infrequent and included occasional reports of gastrointestinal discomfort or dizziness.

### 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.

### 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.

### Cautions

### Timing

Antibody Support must be taken at least an hour after thyroid replacement medication.

### Medication Compatibility

Nigella contains an alkaloid called thymoquinone which is a known inhibitor of CYP liver enzymes CEP1A2, CYP2C9, CPY3A4. Caution is urged for users of medications that are metabolized through these enzymes such as warfarin (Coumadin) and beta-blockers like metoprolol (Lopressor).

### Dosage modification

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

# Allergy Warning

This product is contraindicated in an individual 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 unless on the advice of and under the direct supervision of a health professional.
- The ingredients in Antibody Support are generally considered safe for use in pregnancy and nursing at recommended dosages.



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