

FOUNDATIONAL TREATMENT

Balance is Key

The following conditions can severely impact how your body utilizes thyroid hormone. Work with your practitioner to address these imbalances to maximize the success of your thyroid treatment and to achieve symptom relief.

1. Utilize [proper testing](#) for the conditions below.
2. **Locate your condition here** to find treatment and supplements to help correct these imbalances.

[Autoimmune Disease](#)

[Nutrient Deficiencies](#)

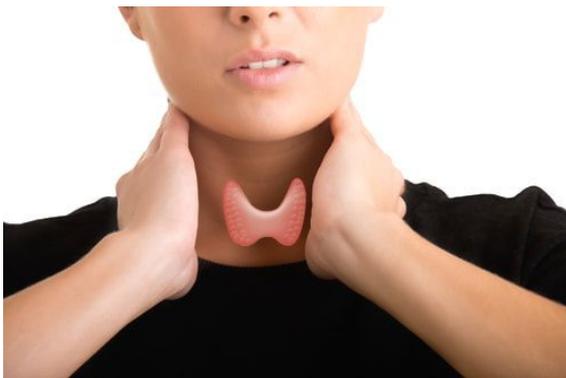
[Adrenal Fatigue](#)

[Leaky Gut Syndrome](#)

[Sex Hormone Imbalances](#)



Do You Have an Autoimmune Disease?



An autoimmune disease is a dysfunction of the immune system where immune cells mistakenly destroy healthy cells instead of what the body perceives as an invader. Autoimmune diseases can create antibodies to the cells of a specific organ or throughout the entire body. While there are many different types of autoimmune diseases that can affect different body systems, the commonality is an immune response caused by such things as heredity, infections, pathogens, inflammation, heavy metals, and/or food sensitivities that leads the body to attack itself.

While addressing the root cause is critical to reaching thyroid autoimmunity remission, there are many ways in which you can reduce antibodies and inflammation with supportive care:

Treatment	Description	Recommendation*
<p>Selenium</p>	<p>This micronutrient has a crucial role in the maintenance of immune-endocrine function, metabolism, and cellular homeostasis which can help reverse Hashimoto's [1].</p> <p>Helps to convert T4 (the "storage" hormone) to T3 (the "active" form) [2].</p>	<p>Pure Encapsulations Selenium</p> <p>Innate Response Selenium</p> <p>NOTE: 200 mcg is generally recommended by integrative practitioners to help lower antibodies [2, 3].</p>
<p>Probiotics</p>	<p>Intestinal permeability is one of the root causes for developing autoimmune issues. Probiotics help repopulate the good bacteria in the intestines and help build a healthy terrain for immunity [4-5].</p> <p>Be sure to avoid gluten and to address food sensitivities if you are trying to heal intestinal permeability. See the "intestinal permeability" table below for more information [6].</p>	<p>VSL 3</p> <p>Klaire Labs Ther-Biotic Complete</p> <p>NOTE: Rotate probiotics every few months to populate a variety of strains in the intestinal tract. Aim for a multi-strain brand that has at least 50 billion colony-forming units [4].</p>
<p>Colostrum</p>	<p>Known as the highly concentrated "milk" in the first feeding of a nursing mammal mother which contains large amounts of immune-supporting compounds.</p> <p>Research demonstrates that colostrum allows for the transfer of passive immunity, and may offer disease protection [7].</p>	<p>Sovereign Laboratories Colostrum-LD</p> <p>Immune Tree Colostrum</p> <p>NOTE: Look for a high quality bovine colostrum sourced from grass-fed cows.</p>
<p>Plant Sterols</p>	<p>Helps promote a balanced immune system by improving the balance of T-helper 1 to T-helper 2 cells, enhancing cellular immunity, and down-regulating an overactive immune response.</p> <p>Promotes balance of adrenal hormones, cortisol, and DHEA, and works to protect against negative stress reactions [8].</p>	<p>Thorne Moducare</p> <p>Moducare Immune Support</p> <p>NOTE: May lower blood sugar. Diabetics should monitor their levels closely. May require a reduction in insulin requirements [12].</p>
<p>Curcumin</p>	<p>Regulates immune responses and helps with the inhibition of NF-kappaB (the protein complex that fuels inflammatory responses) in chronic disease, including autoimmune conditions [9].</p> <p>Has demonstrated to counteract oxidative stress in thyroid disease [10].</p>	<p>Terry Naturally Curamin</p> <p>NatureWise Organic Curcumin</p> <p>Note: Curcumin may affect iron absorption. Take away from iron supplements [11].</p>

<p>Omega-3 Fatty Acids</p>	<p>Omega-3s have anti-inflammatory properties and its use in autoimmune disease is significantly beneficial as they decrease disease activity [13].</p> <p>Contains important vitamins and minerals that act as antioxidants and also assists to burn fat and protect against heart disease.</p>	<p>OmegaVia Pharmaceutical Grade Omega 3</p> <p>Nordic Naturals Omega-3</p> <p>NOTE: The nutrients in fish oil are fat soluble, so it is best absorbed with a meal.</p>
<p>LDN Low Dose Naltrexone</p>	<p>Low dose naltrexone (LDN), a compounded prescription medication, assists the immune system by inhibiting cells that disrupt it.</p> <p>Known to limit the release of inflammatory chemicals and neurotoxins. Other benefits include reduced antibodies for those with autoimmune conditions [14].</p>	<p>Available through a compounding pharmacy only.</p> <p>NOTE: See your doctor for a trusted compounding pharmacy that is experienced with LDN.</p>

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Do You Have Nutrient Deficiencies?



Many people with thyroid conditions have vitamin and mineral deficiencies which can affect the conversion and utilization of thyroid hormone. Physicians are finding that low levels of vitamin D, vitamin B12, iodine, iron, and/or ferritin are often concurrent with thyroid disease in their patients [30-33]. Supplementation is usually required to correct a deficiency and should be monitored by a qualified physician to achieve optimal levels and to avoid excess. The following items are treatments for the most common nutrient deficiencies in thyroid patients. [Proper testing](#) will establish the amount needed for supplementation.

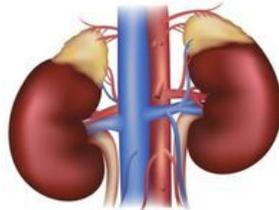
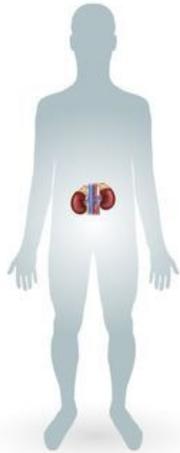
Treatment	Description	Recommendation*
<p>Vitamin D</p>	<p>Low vitamin D levels are associated with increased rates of autoimmunity and reported cases of infections [15].</p> <p>Research recommends screening all hypothyroid patients for vitamin D levels. Supplementation is needed to restore levels [16].</p>	<p>Seeking Health Optimal Vitamin D3 Liquid</p> <p>Pure Encapsulations Vitamin D3</p> <p>NOTE: D3 (cholecalciferol), versus D2 (ergocalciferol), is preferred for increasing vitamin D levels [16].</p>

<p>Vitamin B12</p>	<p>Vitamin B12 plays an essential role in red blood cell formation, cellular processes, nerve function and the production of DNA. 40% of patients with hypothyroidism have a deficiency [17, 18].</p> <p>B vitamins work together; consider a B-complex as well since your body may need the support of other beneficial B vitamins [20].</p>	<p>aSquared Nutrition Methyl B12 Drops</p> <p>Pure Encapsulations B12 Liquid</p> <p>NOTE: Sublingual methylcobalamin, is best absorbed, second only to injection [18]. 40% of patients with B12 deficiencies have a MTHFR gene polymorphism; therefore, should be screened [19].</p>
<p>B Complex</p>	<p>B complex vitamins are involved in mitochondrial, adrenal, and neurological functions and the stress response of the body.</p> <p>The thyroid gland uses all B vitamins to convert and use energy and prevent the accumulation of fat [15, 16].</p> <p>A deficiency in B-vitamins can lead to hypothyroidism. Folate is also important as it is related to TSH levels [35].</p>	<p>Pure Encapsulations B Complex Plus</p> <p>Core Med Science Active B-Complex</p> <p>NOTE: Biotin (Vitamin B7) may cause falsely high or falsely low results in a variety of lab tests, including thyroid tests. It's recommended to stop taking biotin 3-5 days prior to lab testing [34].</p>
<p>Iodine</p>	<p>Iodine deficiency is the leading cause of hypothyroidism since it is a core component of thyroid hormone; approximately 40% of the world's population is at risk [21].</p> <p>Iodine has been shown to affect autoimmune activity. Therefore, is important to find a clinician experienced with iodine treatment [20].</p>	<p>J. Crow's Lugol's Solution of Iodine, 2%</p> <p>Life Extension Sea-Iodine</p> <p>NOTE: Iodine supplementation often requires companion nutrients and salt loading. See The Guide to Supplementing with Iodine by Dr. Stephanie Buist.</p>
<p>Iron and Ferritin</p>	<p>Thyroid peroxidase, the enzyme needed to convert T4 to T3, contains iron. Therefore, iron is essential for thyroid hormone conversion and availability [24].</p> <p>Low stomach acid as a result of hypothyroidism can prevent the absorption of certain nutrients, including iron, causing deficiencies [24].</p> <p>Follow your doctor's recommendation for iron dosing. Too much iron can cause serious health issues.</p>	<p>Ancestral Supplements Grass Fed Beef Liver</p> <p>Solgar Gentle Iron</p> <p>NOTES: Vitamin C should be taken at the same time as your iron supplement to increase iron's absorption.</p> <p>Iron should be taken 4 or more hours apart from thyroid medication since it can block absorption.</p>
<p>Magnesium</p>	<p>Magnesium assists in stimulating the thyroid gland to produce more T4 and</p>	<p>Integrative Therapeutics</p>

	<p>helps to convert the inactive T4 thyroid hormone into the active form of T3 [29].</p> <p>The World Health Organization reported that less than 60 percent of adults in the United States are not meeting the adequate intake values for magnesium [25].</p>	<p>Magnesium Glycinate Plus</p> <p>Pure Encapsulations Magnesium Glycinate</p> <p>NOTE: Many patients prefer magnesium glycinate as it is the most tolerated form for the stomach.</p>
Zinc	<p>Zinc and other trace elements such as copper and selenium are required for the making of thyroid hormones, and deficiency of these can result in hypothyroidism [27].</p> <p>Thyroid hormones are essential for the absorption of zinc, and hence hypothyroidism can result in acquired zinc deficiency [26].</p>	<p>Pure Encapsulations Zinc Picolinate 30</p> <p>Thorne Zinc Picolinate</p> <p>NOTE: Look for zinc picolinate as it is high absorbable. Always take with a meal to prevent nausea.</p>

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Do You Have Adrenal Fatigue?



Often accompanying thyroid disease is adrenal dysfunction, also known as "adrenal fatigue". Adrenal dysfunction can be defined as imbalanced cortisol levels that exist between Cushing's disease (life-threatening high cortisol presentation) and Addison's disease (life-threatening presentation of low cortisol) [21-23].

When cortisol levels are not optimal, thyroid hormone may not be utilized properly and a patient may experience heart-racing, over-stimulation, and increased fatigue when beginning thyroid medication. Adequate cortisol levels must be in place for a patient to successfully tolerate thyroid hormone [24, 34]. Therefore, many physicians will treat adrenal issues before/ or in conjunction with the treatment of

thyroid hormone imbalance. Treatment for adrenal dysfunction depends on the severity of high or low cortisol and should always be monitored by your healthcare provider. Recommended testing is located [here](#).

Treatment	Description	Recommendation*
Adaptogens	Adaptogenic supplements are herbs used to manage the body's hormonal response to stress. They act by tonifying and rejuvenating the adrenal system and promote the regulation of cortisol [30].	<p>Gaia Adrenal Health</p> <p>Innate Response Formulas Adrenal Response</p>

	<p>Common adaptogens include: Ashwaghandha, Rhodiola, Holy Basil, Eleuthero, Panax, Schisandra, Astragalus, Licorice Root, Reishi, and Cordyceps.</p> <p>Holy Basil is known to help lower cortisol while other adaptogens are more balancing.</p>	<p>NOTE: Each adaptogenic herb has its own properties, but blends are available to cover multiple bases.</p> <p>Ashwaghandha can improve thyroid function. You may need to lower your thyroid medication as you begin taking this herb [31].</p>
Nutritional Support	<p>Nutritional support for the adrenal glands serves many purposes. Essential vitamins and minerals are needed for cell metabolism by the adrenal glands, while other nutritional support helps to raise or lower cortisol levels [32].</p> <p>Common vitamins and supplements that can support the adrenals are Vitamin C, Vitamin B5, Vitamin B6, Vitamin B12, Magnesium, Zinc, CoQ10, Alpha Lipoic Acid, Sea Salt Phosphatidylserine, L-Tyrosine and L-Theanine.</p> <p>Vitamin C, B vitamins (especially pantothenic acid) and sea salt are some of the most critical nutrients you can take for adrenal fatigue.</p>	<p>Dr. Wilson's Super Adrenal Stress Formula</p> <p>Thorne Research Stress B Complex</p> <p>Thorne Buffered Vitamin C</p> <p>Integrative Therapeutics Phosphatidylserine</p> <p>Life Extension CoQ10</p> <p>NOTE: Phosphatidylserine is used primarily to lower cortisol. Do not use if you have low cortisol.</p>
Glandulars	<p>Glandular extracts are usually taken from bovine or porcine adrenal gland tissue with the hormones taken out, providing proteins, nucleic acids, and building blocks for cortisol production.</p> <p>Glandulars are typically not intended for high cortisol since it can raise already-high cortisol. However, in some cases, it can modulate a high/low pattern seen in 4xs/day saliva cortisol testing or DUTCH testing.</p>	<p>Dr. Wilson's Adrenal Rebuilder</p> <p>Vital Nutrients Adrenal Support</p> <p>Ortho Molecular Adren-All</p> <p>NOTE: Always work with a qualified practitioner and test using a 4xs/day saliva cortisol test or the DUTCH to assess cortisol patterns throughout the day. Glandular supplementation can make a high cortisol pattern worse.</p>
Hydrocortisone (HC)	<p>With the right dose, cortisol replacement can greatly benefit patients with adrenal dysfunction. Low-dose, long-term use has been proven as safe and effective for patients with low cortisol [36].</p> <p>Replacement use of cortisol at doses of 5mg to 15mg a day are safe, with little or no associated risk [36]</p>	<p>Hydrocortisone (Cortef, Hydrocortone)</p> <p>NOTE: Hydrocortisone can be difficult to wean off of for some patients. Therefore, always work with a qualified physician experienced in prescribing and treating adrenal dysfunction.</p>

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Do You Have Leaky Gut Syndrome?



Thyroid health is dependent on optimal gut health. The "tight junctions" within the stomach lining are designed to seal stomach contents from the bloodstream. Over time and with irritation, they may "loosen" and allow unintended molecules to pass through the stomach lining causing systemic inflammation and stimulate an immune system reaction. This is also known as intestinal leaky gut is not addressed and healed, it can be a root cause to thyroid conditions, food sensitivities, arthritis, inflammatory bowel disease, eczema, adrenal fatigue, depression, anxiety, ADHD, nutrient

malabsorption and autoimmune disease [33]. permeability or "leaky gut". If leaky gut is not addressed and healed, it can be a root cause to thyroid conditions, food sensitivities, arthritis, inflammatory bowel disease, eczema, adrenal fatigue, depression, anxiety, ADHD, nutrient malabsorption and autoimmune disease [33].

Treatment	Description	Recommendation*
Probiotics	<p>Supplementing with probiotics or "good bacteria" is both a preventative and therapeutic measure, in order to restore the health composition and function of gut microbiome [37].</p> <p>Most of the immune system is housed within the gastrointestinal (GI) tract. Poor gut health is a factor in triggering and exacerbating autoimmune diseases [38].</p>	<p>VSL 3</p> <p>Klaire Labs Ther-Biotic Complete</p> <p>Renew Life Ultimate Flora</p> <p>NOTE: Rotate probiotics every few months to populate a variety of strains in the intestinal tract. Aim for a multi-strain brand that has at least 50 billion colony-forming units [4].</p>
Restore	<p>Restore is a carbon-rich, alkaline liquid comprised of a formulation of aqueous humic substances and trace mineral amino acid complexes. It has been shown in lab testing to increase and strengthen the tight junctions in the gut lining.</p> <p>Restore is not a probiotic nor a prebiotic [39].</p>	<p>Restore</p> <p>NOTE: Take Restore thirty minutes before a meal because of Restore's protective effects against gluten and sensitivities [39].</p>
Digestive Enzymes	<p>Digestive enzymes help break down proteins, fats, sugars, and starches, which can reduce intestinal inflammation and help heal the intestinal lining.</p>	<p>Pure Encapsulations Digestive Enzymes Ultra</p> <p>Rainbow Light Advanced Enzyme System</p>

	By assisting in breaking down food, digestive enzymes help ensure that there will be fewer food toxins passing through the gut and causing further damage [40].	NOTE: If you have a gluten or dairy sensitivity, you can buy a digestive enzyme targeted for that use. Broad spectrum enzymes available [40].
L-Glutamine	<p>Glutamine is an abundant amino acid in the bloodstream and research demonstrates its ability to help restore gut health [41].</p> <p>Thyroid hormone imbalance has been shown to have a great impact on the metabolism of glutamine [42].</p>	<p>Jarrow L-Glutamine Powder</p> <p>Thorne L-Glutamine Powder</p> <p>NOTE: Some people may experience anxiety or heart racing with L-Glutamine. If this happens, it is advised to start at a very small amount and increase slowly.</p>
Licorice Root	<p>Licorice is a well-researched medicinal plant with many uses from reducing inflammation to aiding in the metabolism of cortisol to balancing gastrointestinal issues.</p> <p>Licorice root has compounds that promote regulatory T cell induction, which plays a critical role in controlling immune responses and preventing autoimmunity [43].</p>	<p>Designs for Health Gastro-Mend</p> <p>Pure Encapsulations DGL Plus</p> <p>NOTE: Look for licorice root that is deglycyrrhizinated (or DGL). This form of licorice has glycyrrhizin removed. Glycyrrhizin can cause edema and hypertension in some individuals.</p>
Quercetin	<p>Quercetin is a flavonoid and is well-known for many things, including its anti-allergy properties, anti-cancer effects, and as an antioxidant.</p> <p>Quercetin helps to heal the gut by its role in the assembly and expression of tight junction proteins [44].</p>	<p>Jarrow Quercetin</p> <p>Pure Encapsulations Quercetin</p> <p>NOTE: Use caution if you take Quercetin with antibiotics, chemotherapy, or blood-thinner medications, as it may reduce their effectiveness.</p>

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Do You Have a Sex Hormone Imbalance?



Your body is composed of a variety of different hormones, including growth and sex hormones, which also impact thyroid hormone function and vice versa. Aging is associated with a loss of sex hormones and there are many conditions that cause sex hormone issues in both younger men and women. An imbalance of one hormone lends to other hormonal imbalances. Untreated thyroid disease can often lead to testosterone imbalances, low progesterone/estrogen dominance and symptoms/conditions such as PCOS, low libido, infertility, endometriosis, etc. [27-28]. If it is determined that sex hormone levels are low, the

physician may prescribe either bioidentical or synthetic hormones to help achieve optimal levels. Bioidentical hormone replacement therapies (BHRT) are biochemically identical to the hormones made in the body. BHRT is usually derived from natural sources such as wild yam and most forms are available by compounded prescriptions. Many practitioners prefer BHRT over synthetic formulations for optimal hormone balance and for the array of dosages and delivery systems available [29].

Treatment	Description	Recommendation*
Pregnenolone	<p>Pregnenolone is synthesized by cholesterol and made by the adrenal glands and liver. It is an important precursor to other hormones, including DHEA, progesterone, estrogen, testosterone, and cortisol. By late adulthood, pregnenolone will decline by nearly 60% for most people (47,48).</p> <p>Pregnenolone assists in the conversion of T4 to the more active T3. Many people with thyroid disease are low in pregnenolone and may benefit with trial supplementation (49).</p>	<p>Pure Encapsulations Pregnenolone</p> <p>Ortho-Molecular Pregnenolone</p> <p>NOTE: Buy pregnenolone that states "pregnenolone" as the ingredient, rather than wild yam or diosgenin. Wild yam contains diosgenin that must be converted in a laboratory to make pregnenolone.</p>
DHEA	<p>DHEA is a hormone that is produced by the adrenal glands. Levels of DHEA naturally drop as we age and low DHEA is associated with a number of diseases including thyroid disease.</p> <p>DHEA is frequently low with weak adrenals, and weak adrenal function is typically seen in many hypothyroid patients. Chronic illness or stress can cause spiked or depleted cortisol patterns, which also depletes</p>	<p>Pure Encapsulations DHEA</p> <p>Ortho-Molecular DHEA</p> <p>NOTE: DHEA should be taken on a temporary basis while addressing the true cause of the dysfunction such as adrenal stress (52).</p>

	production of DHEA (52).	
<p>Estrogen Including estrone (E1), estradiol (E2), estriol (E3), and estetrol (E4).</p>	<p>Primarily produced by the ovaries, estrogen is responsible for the growth of a women's uterine lining. Estrogen replacement therapy can reduce or resolve symptoms of menopause or other estrogen imbalance issues. Estrogen therapy can also lower the risk of osteoporosis for those who are deficient (45).</p> <p>The link between estrogen dominance and hypothyroidism is well-researched. The estrogen/progesterone hormone imbalance directly affects thyroid function (46).</p>	<p>Replacement therapy includes patches, transdermal methods, vaginal suppositories, rings, etc. Discuss with your doctor about available options.</p> <p>While prescription bioidentical formulas are preferred, a widely used over-the-counter bioidentical transdermal cream is available:</p> <p>Emerita Estriol Natural-Balancing Cream.</p>
<p>Progesterone Including progestin and progesterone.</p>	<p>Made from pregnenolone and secreted by the ovaries in women and by the testes in men, progesterone serves as a precursor to DHEA, testosterone, estrogen and cortisol.</p> <p>Progesterone directly affects thyroid hormone levels. Research concluded that progesterone therapy increases lab levels of Free T4 (50). Other important functions include (but aren't limited to) regulating a women's menstrual cycle along with estrogen, regulating blood sugar, converting fat into energy, increasing brain function, and activating GABA receptor sites.</p>	<p>Replacement therapy includes patches, transdermal methods, vaginal suppositories, rings, etc. Discuss with your doctor about available options.</p> <p>While prescription bioidentical formulas are preferred, a widely used over-the-counter bioidentical transdermal cream is available:</p> <p>Emerita Pro-Gest Cream</p>
<p>Testosterone</p>	<p>Testosterone, an important hormone for metabolism, is made in the testes and adrenal glands in a male. In a woman, testosterone is made in the ovaries and adrenal glands.</p> <p>Testosterone and thyroid hormones are responsible for similar bodily functions, so when one is not working, the other is affected. When hypothyroid states return to normal, testosterone levels tend to return to normal as well (51).</p>	<p>Replacement therapy includes patches, transdermal methods, injections, and subcutaneous pellets. Discuss with your doctor about available options.</p> <p>While prescription formulas are preferred, a widely used over-the-counter herbal formula is available:</p> <p>Prime Labs Testosterone Booster</p>
<p>Hormone-Balancing Supplements</p>	<p>There are many natural supplements on the market that have been researched to help bring hormones into balance (53).</p>	<p>Pure Encapsulations Chaste Tree (Vitex)</p> <p>Gaia Maca Root</p>

	<p>Individual herbs or nutrients are available while other supplements contain a synergistic blend of ingredients to help restore the body's natural hormonal balance in a variety of ways.</p> <p>Research each product and product ingredients for its particular use to see if it's right for you.</p>	<p>Gaia Black Cohosh</p> <p>New Chapter Estroton</p> <p>Himalaya Shatavari</p> <p>Allergy Research Group DIM</p>
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Need Assistance?



Order Full Thyroid Labs

Are you getting thyroid labs tested beyond TSH? Now you can order your own full thyroid panel at a special rate.

Schedule a Doctor Consult

Doctor phone consults can determine if you are on the right dose of thyroid medication and can create a plan for you.

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