

www.homecuresthatwork.com

JULY 2026

homeCures that work

WEIGHT CONTROL • HEALTHY RECIPES • SPIRITUAL WELLNESS • LIVING HEALTHY

a **barton** publication

7 Reasons Your Thyroid Is Struggling

**The Leaky
Gut-Thyroid Link:
What's Happening in Your Gut
Could Be Driving Your Thyroid
Problem**

**Hashimoto's: Why Your Immune
System Is Attacking Your
Thyroid**

**The Magnesium Secret Your
Cells Have Been Waiting For**

Table of Contents

- 4** **7 Reasons Your Thyroid Is Struggling**
Dr. Saunders breaks down the most overlooked causes of thyroid dysfunction — read this before you accept "normal labs" as the final answer.
- 11** **6 Ways Blood Sugar Swings Wreck Your Thyroid**
If your energy crashes and your thyroid won't cooperate, your blood sugar might be the missing link — see what's really going on.
- 15** **The Leaky Gut–Thyroid Link: What's Happening in Your Gut Could Be Driving Your Thyroid Problem**
Your gut and thyroid are more connected than you think — find out how healing one can transform the other.
- 19** **Hashimoto's: Why Your Immune System Is Attacking Your Thyroid**
Discover why your immune system — not just your thyroid — may be behind your symptoms, and the root-cause approach that's helping people find real relief.

From the Editor



Cheryl Favey

Editor, Home Cures That Work

If you've ever been told your thyroid labs are normal while still feeling exhausted, foggy, and frustrated — this issue is for you.

This month, we're going deep on one of the most misunderstood and undertreated conditions affecting millions of Americans: thyroid dysfunction. And we're starting with a remarkable piece from our own Dr. Scott Saunders, M.D., who makes a compelling case that the way conventional medicine handles thyroid disease is fundamentally broken. In *7 Reasons Your Thyroid Is Struggling*, Dr. Saunders walks through the real culprits — from nutrient deficiencies and environmental toxins to the genetics of hormone conversion — that most doctors never investigate. If you read only one article this month, make it this one.

From there, we follow the science into territory that surprises most people. In *Hashimoto's: Why Your Immune System Is Attacking Your Thyroid*, you'll learn why Hashimoto's is an immune problem first and a thyroid problem second — and why treating only the thyroid leaves so many patients stuck.

We then explore *The Leaky Gut–Thyroid Link* — because the road to thyroid recovery, for many people, runs directly through the gut. The connection is more direct than you'd expect.

And finally, if you've ever felt like your energy and weight are on a rollercoaster you can't control, *6 Ways Blood Sugar Swings Wreck Your Thyroid* explains the hormonal chain reaction that may be driving it all.

This is the thyroid conversation your doctor probably hasn't had with you. We hope it changes everything.

7 Reasons Your Thyroid Is Struggling



The nutrients, stressors, and toxins driving thyroid dysfunction and what to do about them.

One night I was at the house of a friend having dinner and across the table I noticed his 16-year-old daughter had a mass in her neck, clearly a goiter. I brought it up and asked if they knew about this. They said they had been to an endocrinologist who put her on thyroid medication because her TSH was high. I was shocked that a physician would relegate a young woman to a lifetime of medication when all that was needed was some iodine and possibly other supplements to fix the underlying problem.

Over the years I have had multiple patients with goiter and other thyroid problems who were treated with levothyroxine (generic for Synthroid or T4). Thyroid-related complaints are one of the most common reasons people seek medical care, especially when symptoms such as fatigue, brain fog, weight change, or cold intolerance are involved.

As a result, thyroid testing has become routine, and thyroid hormone replacement is prescribed on a massive scale. Levothyroxine, in particular, has remained one of the most frequently prescribed medications for years.[1],[2]

Being among the most prescribed medications is not for nothing, thyroid dysfunction is genuinely common, but the failure is to reduce a complex endocrine issue to a single lab value, TSH, without fully exploring the mechanisms behind a patient's symptoms. The result is a system in which many people are screened, labeled, and treated, while the underlying causes of thyroid dysfunction is ignored.

Limits of TSH-Based Diagnosis

Much of conventional thyroid diagnosis relies on thyroid stimulating hormone (TSH), which is produced by the pituitary gland in the brain.

In standard practice, elevated TSH means that the thyroid is underperforming, while suppressed TSH is overactivity.[3] This may be all the doctors know but it does not paint the whole picture. Many things affect thyroid function, such as:

- Cortisol[4] —Chronic stress suppresses TSH, and high cortisol prevents conversion of the inactive T4 to the active T3.
- Inflammation[5] — Cytokines interfere with TSH signaling, chronic inflammation lowers conversion of T4 to T3, and contributes to autoimmune thyroid dysfunction.
- Caloric restriction — Dieting artificially lowers TSH. If testing is done in a fasted state, the TSH might not be accurate.
- Time of day — TSH can swing 50% between morning and afternoon

- Iodine status, selenium, zinc, iron — All modify TSH independently of thyroid health
- Genetic enzyme status – The enzymes that make T4 in the thyroid gland, as well as the conversion of T4 to T3 are variable, depending on their genetics.

A patient may be told that everything is normal because TSH falls within range, or may be started on medication when TSH is only mildly abnormal, without a complete evaluation of thyroid hormones and endocrine stressors.

Nutrient deficiencies

One major endocrine stressor is nutrient deficiencies. The nutrients that affect thyroid hormone levels are not rare deficiencies.

- Tyrosine is a semi-essential amino acid that is commonly lacking.
- Iodine – the most common cause of goiter is iodine deficiency, which is increasing in the United States.[6]
- Selenium is required for the production of T4, as well as the conversion of T4 to T3.[7]
- Zinc – needed to make T4, conversion to T3, and thyroid receptor proteins.[8]
- Iron – required for TPO enzyme to make T4 and T3 in the thyroid gland.[9]

Goitrogens

The classic raw vegetable goitrogens deserve a mention — including raw cruciferous vegetables (broccoli, kale, cabbage, Brussels sprouts), soy, millet, and even excessive green tea.

They inhibit iodine uptake and TPO activity. Cooking largely deactivates them, and iodine sufficiency blunts their effect, but someone juicing raw kale daily while iodine-deficient is stacking the deck against their thyroid. This is actionable and low-hanging fruit.

Toxicity: Halogens and Iodine Competition

The thyroid requires iodine to synthesize T4. Some researchers and clinicians point to halogen compounds such as fluoride, bromide, chlorine, and perchlorate as potential disruptors because they can interfere with iodine uptake or transport. The table below summarizes several commonly cited examples and the ways they are said to affect thyroid physiology.

<u>Element</u>	<u>Source</u>	<u>Effect on Thyroid</u>
Fluoride	Water, toothpaste, Teflon	Blocks iodine uptake; was once used as a drug to suppress hyperthyroidism
Bromide	Flame retardants, bread dough,[10] citrus sodas, tap water, Hot tubs	Displaces iodine
Chlorine	Tap water, pools, cleaning products	Competes with iodine; a highly chlorinated pool might affect your thyroid[11]
Perchlorate	Rocket fuel, fireworks, fertilizers	Potent iodine transport inhibitor — widespread in groundwater[12]

From this perspective, everyday exposure through water, food, household products, and industrial contaminants may place a chronic burden on thyroid regulation, especially in individuals who are already vulnerable because of nutrient deficiencies or autoimmune disease.



PFAS and Hormone Transport

PFAS, often called “forever chemicals,” are another class of compounds frequently discussed in this context.[13] These substances are widespread in the environment and have been studied for possible endocrine effects, including interference with the proteins that transport thyroid hormones in the bloodstream. If those transport systems are altered, circulating lab values may not fully reflect what is happening at the cellular level.

Plastics, BPA and Phthalates

Endocrine-disrupting compounds associated with plastics, including BPA, [14] which can lower T3, and phthalates, [15] which may increase T3. Because these compounds are present in packaging, personal care products, receipts, and other common materials, exposure can be difficult to avoid.

Questions About T4-Only Treatment

Another major point of debate concerns treatment itself. Levothyroxine is T4, the hormone most commonly prescribed for hypothyroidism. It must be converted to T3 to be active. We have already seen that several different things can affect that conversion.

The thyroid naturally produces several hormones, including:

- T4 (~80-90%) — the storage form, largely inactive
- T3 (~10-20%) — the active form that actually runs your metabolism
- T2, T1, calcitonin — other hormones with their own functions

The T3 made by the thyroid gland is only partially used by the body. Most T3 conversion happens in peripheral tissues, meaning the individual cells of your body, which requires:

- Healthy liver function
- Adequate selenium
- Adequate zinc
- Adequate iron
- Low inflammation
- Normal cortisol with a good circadian rhythm
- Normal genetic deiodinase enzymes

This may explain why some patients continue to report fatigue, weight gain, brain fog, hair loss, or cold intolerance even after their TSH normalizes on levothyroxine. It also explains why some people feel better on T3, or combinations of T4 and T3 like desiccated thyroid preparations such as Armour or NP Thyroid.

Low T3 Syndrome / Euthyroid Sick Syndrome

In chronic illness, inflammation, or severe stress, the body deliberately downregulates T4-to-T3 conversion and upregulates conversion to reverse T3. This is likely an adaptive, energy-conserving response. The TSH can look normal while free T3 tanks and reverse T3 climbs. Dumping more T4 into this system doesn't fix it — it often makes things worse by providing more substrate for rT3 production.

Medically Induced Hypothyroidism[16]

Not all thyroid hormone prescriptions are written for spontaneous or naturally developing hypothyroidism. Some are needed because thyroid function has been impaired by medical treatment, surgery, or drug side effects.

- **Lithium** (for bipolar disorder) — directly damages the thyroid, often permanently.
- **Amiodarone** (for heart arrhythmia) — loaded with iodine, wrecks thyroid function
- **Beta Blockers** — block the effects of thyroid
- **Checkpoint inhibitors** (cancer immunotherapy) — can destroy the thyroid
- **Radiation to the neck** — fries the gland directly
- **Thyroidectomy** — “we'll just remove it and give you pills”

Thyroid hormone is necessary for life. In such cases, long-term thyroid replacement may be medically necessary.



The Rise of Autoimmune Thyroid Disease

Hashimoto's thyroiditis is now the leading cause of hypothyroidism in many developed countries.[17] Because it is an autoimmune condition, the issue is not only hormone deficiency, but also immune dysfunction directed at thyroid tissue. Thyroid disease is not just a problem with the thyroid gland, you must also consider immune and environmental factors.

- **Gut permeability** (leaky gut) from glyphosate, processed food, and gut-disrupting medications
- **Chronic viral load** (EBV reactivation is strongly linked to Hashimoto's)
- **Vitamin D deficiency** from indoor lifestyles and sunscreen hysteria
- **Chronic stress** — cortisol dysregulation drives Th1/Th2 immune imbalance
- **Environmental immune disruptors** — the same chemicals listed above

From a functional perspective, we must find out why the immune system is attacking the thyroid in the first place, rather than just give more thyroid hormone.

How To Evaluate the Thyroid

Rather than just testing the TSH and prescribing permanent hormone replacement, you must find the underlying cause. Everything in the body can be tested. First, start with what is the problem. For example, fatigue is very common, but most often it is not a thyroid problem.

Symptoms are an essential part of the evaluation for low thyroid:[18]

- Fatigue – “I feel like I have to push myself to do anything”
- Cold intolerance – cold hands and feet, wearing a sweater in 80-degree weather
- Constipation – needing laxatives to have a bowel movement
- Hair loss – the eyebrows are common, as well as the hair on the head falling out
- Weight gain – if this is the only symptom, it is not a thyroid problem.
- Dry skin – from lack of sweating



- High thyroid (hyperthyroidism) has a completely different set of symptoms:
- Nervousness – feeling like you are constantly being pushed.
- Tremor, or shaking – a fine tremor that does not affect your function (like writing)
- Weight loss – This is highly variable and may not be present
- Sweating (heat intolerance) – going out in the snow with shorts and a t-shirt
- Each of these can have multiple cause, but those with multiple symptoms of either low or high thyroid are likely to have these issues.

If the symptoms warrant, the first test is a complete thyroid panel:

- **Thyroid Stimulating Hormone (TSH)** – Pituitary hormone (since it is the hormone that tells the gland to make more, TSH is high when thyroid is low, and low when thyroid is high)
- **Free T4** – This is what the thyroid gland mostly makes. It is the reservoir that is in the blood for the body tissues to tap into and make T3.
- **Free T3** – This is the active thyroid hormone.
- **Reverse T3** – This is like having a left-handed glove when you need a right-handed glove. It is made when there is increased stress, and blocks the active T3. The rT3 Dominance Pattern, causing functional hypothyroidism at the cellular level regardless of what the other numbers say. A common functional cutoff: free T3 (pg/mL) to reverse T3 (ng/dL) ratio below 0.2 suggests rT3 dominance.

- **Thyroid Peroxidase Antibodies (TPO)** – Signals an autoimmune disease, antibodies that attack an enzyme that is needed to make T4
- **Anti-Thyroglobulin Antibodies** – This is autoimmune antibodies against the carrier protein for the thyroid hormone.



The Myth of T4 Forever

So many people are told that they can never stop the thyroid pills. This is simply not true. I have helped many reverse their thyroid problems. The thyroid atrophies when you take thyroid hormones, but the gland can start working again by giving the proper nutrients and gradually lowering the prescriptions. The idea is to allow TSH to increase so it can stimulate the thyroid gland to start making hormones again.

The Deiodinase Polymorphisms

A significant portion of the population carries polymorphisms in the DIO2 gene (the one responsible for peripheral T4-to-T3 conversion). These people literally cannot convert T4 to T3 efficiently — their enzyme is genetically sluggish. They will never feel right on T4 alone, no matter how perfectly the dose is titrated. This isn't fringe; it's well-characterized genetics. If you have this problem, T4 will not work for you. You will need to take T3

How To Treat Thyroid Dysfunction

The important thing about treatment is to find the underlying cause first. It is so easy to get into the same rut as the doctors, treating a lab number and not the cause.

DETOX[19]

We are all exposed to lots of halides: fluoride, bromide, and chloride compete with iodide. If you're bathing in fluoridated water, brominated bread, and chlorinated pools, your effective iodine requirement goes up. If you have thyroid issues, you must start with a halide detox.

First add the basic nutrients:

Selenium — 200 µg/day as selenomethionine or selenium yeast. Without this, the oxidative stress from increased T4 production and Peroxide generation will inflame the thyroid. Selenium also supports glutathione peroxidase, which is critical for neutralizing the oxidative byproducts of halide detox.

Magnesium — 400–600 mg/day.

Vitamin C — 1 gm with each meal, improves iron absorption. Also acidifies urine slightly, which enhances renal bromide clearance.

Unrefined salt (sodium chloride) — The chloride in salt competes with bromide at renal reabsorption sites and supports its excretion. This is why the "salt loading" protocol exists in iodine circles. ½ tsp in water 1–2x daily during active detox phases.

B vitamins (B-complex) — Particularly B2 (riboflavin) and B3 (niacin) for FAD/NAD-dependent detox pathways.

Zinc 15mg per day.

Test for Nutrients using blood or urine tests. I don't use hair because it has too much environmental exposure. I also think the WBC nutrient tests aren't reliable.

- **Iodine** – A common deficiency, especially in the United States.
- **Selenium** - A common deficiency trace mineral that is hard to get in food in some areas of the world.
- **Iron** – More common deficiency in women.
- **Tyrosine** – As we age we digest and absorb less protein.
- **Zinc** – Essential for both thyroid and immune function.
- **Copper** – Must balance with Zinc.
- **Vitamin D** – Low vitamin D is associated with autoimmune disease

Test the Adrenals – A.M. Cortisol; DHEAS; and possibly plasm metanephrines.

Test for toxins - There are many labs online that will test for environmental toxins, including bisphosphonates, PFAS, and mycotoxins.

Test for Bowel disease/gut flora – There are many labs that test the bowel flora, such as the GI MAP test.

After a couple weeks – use 2% Lugol's solution in sufficient quantities to displace the other halides. The gland preferentially uptakes iodide (I⁻). Elemental iodine (I₂) has different tissue distribution: breast tissue, prostate, and ovaries. Lugol's solution provides both forms for a better detox.

Some will have encountered warnings that iodine can trigger or worsen Hashimoto's: the concern is that excess iodine increases TPO activity and hydrogen peroxide production, and without adequate selenium to run glutathione peroxidase, that oxidative stress can inflame the gland. This is why you front-load selenium and other nutrients before introducing iodine — you've already solved for this.

Start low, go slow:

- 1–2 drops of 2% Lugol's Solution for 2 weeks.
- Next, titrate up slowly to 10 drops (25mg iodine), increasing by one drop per dose.
- Pulse dosing (every other day) is more effective and prevents buildup of excessive iodine
-

Continue taking it every other day for 2 weeks.

After the detox, you can continue Lugol's solution about 2 drops once per week to maintain the iodine sufficiency and prevent halide toxicity. People with long-term bromide exposure (brominated oils) may store it in the fat for months. The chronic detox is gradual.

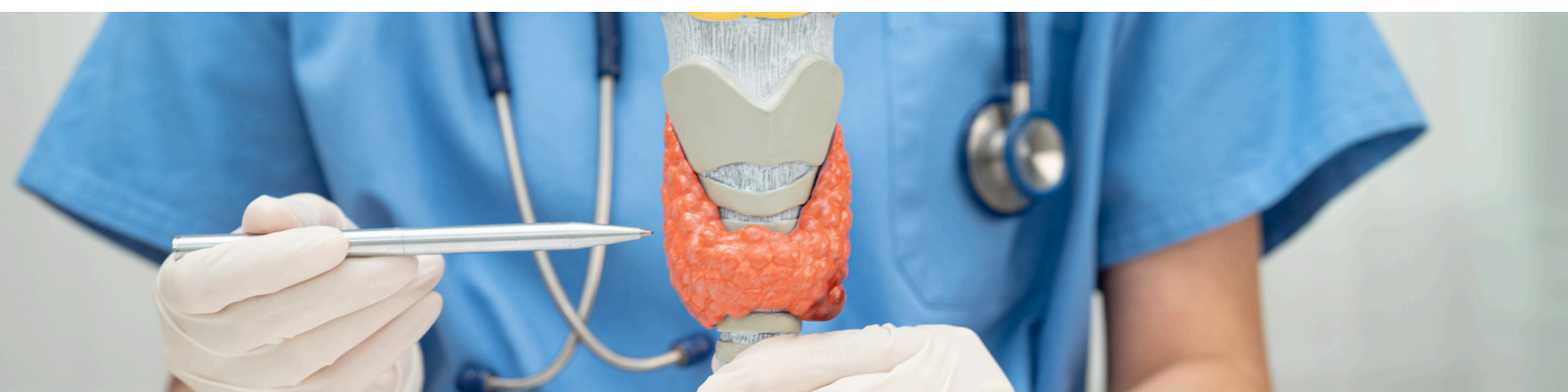
Other treatments: Anything else will be dictated by the test results. If the problem is in the adrenals, then of course you must deal with stress hormones. If you have autoimmune disease, then you need an immune protocol – repair the bowel, improve nutrition, fix bowel flora, and supplement high-dose vitamin D. If the problem is toxic you will need to detox from that specific toxin. If the problem is deficiency you will need to supplement the deficient nutrients. I have had many who take multiple thyroid supplements, hoping to improve, but still have symptoms of low thyroid. When we test, we find it is something else, and finally get results. It is so helpful to know what the problem is, so the treatment is not random.

How To Take Thyroid Hormone

The nice thing about thyroid hormones is that every animal with a thyroid gland makes the exact same hormone, however a pig makes the same ratio of T4 to T3 as humans. Cows are different. Sometimes the thyroid gland puts out a lack of hormones so taking a thyroid hormone pill may be necessary. In this case, you find what works best. The tests get you close, but you don't treat based on numbers exclusively. The primary guide is symptoms. If you are taking too little, you will get the symptoms of low thyroid, and if too much, the symptoms of high thyroid.

I have had patients do best with a T4 prescription. Some people need T3 and T4 to function well. This can be done with a T3/T4 medication (Thyrolar), or a natural thyroid extract (Armour, NP Thyroid, Naturethroid, Westhroid). Thyroid extracts are also found over the counter, but they usually require more pills because they are not concentrated, they are just ground up thyroid glands from pigs or beef. Thyroid should be taken on an empty stomach because food and medications can interfere with absorption. The common absorption disruptors include: calcium, iron, magnesium, proton pump inhibitors, H2 blockers, and even coffee taken within an hour of thyroid medication. Many patients take their levothyroxine with their morning supplements or coffee and unknowingly reduce absorption by 30–40%. Simple fix, big impact.

The T4-monotherapy crowd treats thyroid dysfunction like it's a thermostat — tweak one dial, job done. Take this pill, see you in six months. But running a thyroid properly means working backward from the symptoms to find what actually broke the system. Labs inform; they don't dictate. Symptoms tell you whether the treatment is actually working at the tissue level, not just painting over the numbers.



Thyroid care doesn't live in a single specialty. It sits at the crossroads of endocrinology, environmental toxicology, nutritional biochemistry, immunology, and the kind of medicine where you actually listen to the patient. If the goal is symptom resolution and long-term metabolic health — not just a TSH value that fits inside a reference range — then the entire conversation has to shift. Stop asking "what pill normalizes the labs" and start asking "why did this person's thyroid system fail in the first place."

REFERENCES:

- [1] <https://studylib.net/doc/25273389/50-most-commonly-prescribed-medications>
- [2] <https://clincalc.com/DrugStats/Top200Drugs.aspx>
- [3][3] <https://www.thyroid.org/thyroid-function-tests/>
- [4] <https://biologyinsights.com/the-connection-between-thyroid-and-cortisol/>
- [5] <https://www.thyroidschool.com/library/the-thyroid-and-inflammation>
- [6] <https://www.acibademhealthpoint.com/iodine-deficiency-in-the-united-states/>
- [7] <https://link.springer.com/article/10.1186/s43094-026-00972-1>
- [8] <https://link.springer.com/article/10.1186/s43094-026-00972-1>
- [9] https://thyroidpharmacist.com/articles/balancing-iron-levels-can-help-your-thyroid/#_ftn9
- [10] <https://www.kingarthurbaking.com/pro/reference/bromate>
- [11] <https://pmc.ncbi.nlm.nih.gov/articles/PMC9326600/>
- [12] <https://www.sciencedirect.com/science/article/abs/pii/S2451965025000201>
- [13] <https://endocrinenews.endocrine.org/exposure-to-forever-chemicals-may-affect-thyroid-health/>
- [14] <https://pmc.ncbi.nlm.nih.gov/articles/PMC7216215/>
- [15] <https://pmc.ncbi.nlm.nih.gov/articles/PMC7216215/>
- [16] <https://www.restartmed.com/medications-thyroid-problems/>
- [17] <https://scienceinsights.org/how-common-is-hashimotos-disease-and-who-gets-it/>
- [18] <https://my.clevelandclinic.org/health/diseases/8541-thyroid-disease>
- [19] <https://www.earthclinic.com/remedies/lugols-iodine-treatment-bill-thompson.html>



6 Ways Blood Sugar Swings Wreck Your Thyroid

If your energy crashes after meals, you're tired but wired, and no amount of thyroid medication seems to get you stable — your blood sugar may be running the show.

Most people think of blood sugar as a diabetes problem. But you don't have to be diabetic — or even prediabetic — for blood sugar instability to quietly damage your thyroid function. The two systems are so tightly interwoven that disruption in one almost always creates disruption in the other. For the millions of people managing thyroid conditions without full relief, blood sugar regulation is frequently the overlooked variable.

Understanding how these systems interact isn't just academic. It's one of the most actionable levers available for people who want to feel better — not just have better lab numbers.

Way 1: The Thyroid–Blood Sugar Feedback Loop

The thyroid and blood sugar regulation are in constant communication. Thyroid hormones directly influence how the body produces, releases, and responds to insulin. And in return, blood sugar stability — or the lack of it — directly affects how the thyroid produces and converts its hormones.

This is a two-way street with a lot of traffic:

- Thyroid hormones regulate glucose metabolism. T3, the active thyroid hormone, controls how quickly cells absorb glucose and how efficiently the body burns it for energy. Low T3 slows glucose uptake, contributing to insulin resistance.
- Insulin resistance impairs T4-to-T3 conversion. The conversion of inactive T4 to active T3 depends on healthy liver and cellular function. Chronically elevated insulin and blood sugar impair this conversion, leaving more reverse T3 (the inactive, blocking form) and less usable T3.
- Blood sugar swings spike cortisol. Every significant glucose crash triggers a cortisol response. Cortisol, in turn, suppresses TSH, blocks T4-to-T3 conversion, and drives the body toward rT3 production. Frequent blood sugar swings mean frequent cortisol spikes — and a thyroid system under constant suppression.



- Hypothyroidism promotes insulin resistance. Low thyroid hormone slows the rate at which cells respond to insulin, impairs glucose clearance from the bloodstream, and reduces the liver’s sensitivity to insulin signaling. Thyroid dysfunction and metabolic dysfunction are mutually reinforcing.

Way 2: What “Blood Sugar Swings” Actually Means

Blood sugar dysregulation doesn’t require a diabetes diagnosis. It exists on a spectrum, and many people in the middle of that spectrum — reactive hypoglycemia, insulin resistance, pre-diabetes — experience significant symptoms without any formal diagnosis.

COMMON BLOOD SUGAR PATTERNS & THEIR THYROID IMPACT		
Pattern	What's Happening	Thyroid Impact
High-carb spikes	Rapid glucose rise after meals triggers large insulin release	Chronic insulin elevation impairs T4→T3 conversion
Reactive hypoglycemia	Blood sugar crashes 1–3 hrs after eating; cortisol rushes in	Cortisol suppresses TSH and drives rT3 production
Insulin resistance	Cells stop responding to insulin; glucose stays elevated	Reduces cellular T3 uptake; promotes inflammation
Fasting / skipping meals	Prolonged low glucose triggers stress hormone cascade	Caloric restriction artificially lowers TSH; T3 drops
Overnight glucose dips	Blood sugar falls during sleep; cortisol rises to compensate	Disrupts the circadian TSH rhythm; morning levels unreliable

Way 3: The Cortisol Bridge

Of all the mechanisms connecting blood sugar and thyroid function, cortisol is the most direct and most damaging. Every time blood sugar drops significantly — whether from skipping a meal, eating too many refined carbs and crashing, or going too long between meals — the adrenal glands release cortisol to raise glucose back up.

Cortisol does the job. But it comes at a steep cost to the thyroid:

- Suppresses TSH — the pituitary signal that tells the thyroid to produce hormones
- Blocks the deiodinase enzymes — the enzymes that convert T4 to active T3
- Upregulates reverse T3 production — flooding receptors with the inactive, blocking form of T3
- Promotes Th1/Th2 immune imbalance — worsening autoimmune thyroid conditions like Hashimoto’s
- Breaks down muscle tissue — releasing amino acids that further dysregulate blood sugar in a vicious cycle

Someone who skips breakfast, eats a high-carb lunch, crashes mid-afternoon, and reaches for something sweet has triggered this cortisol-thyroid suppression sequence multiple times before dinner. Over weeks and months, this pattern measurably degrades thyroid hormone metabolism

Way 4: Shared Symptoms: Why the Two Are So Easily Confused.

One reason the thyroid–blood sugar connection goes unrecognized is that both conditions produce nearly identical symptoms. Practitioners — and patients — often attribute everything to one or the other, missing that both may be active simultaneously.

SHARED SYMPTOMS:
HYPOTHYROIDISM VS. BLOOD SUGAR DYSREGULATION

Symptom	Hypothyroidism	Blood Sugar Dysregulation
Fatigue	✓	✓
Brain fog	✓	✓
Weight gain	✓	✓
Mood swings / irritability	✓	✓
Difficulty concentrating	✓	✓
Cold intolerance	✓	Sometimes
Anxiety / heart palpitations	Sometimes	✓
Cravings for sugar / carbs	Sometimes	✓
Energy crashes after meals	Sometimes	✓
Hair thinning	✓	Sometimes

If you’re being treated for thyroid disease and still experiencing most of these symptoms, blood sugar stability deserves serious attention.

Way 5: How to Stabilize Blood Sugar to Protect Thyroid Function

The good news: blood sugar dysregulation is one of the most responsive conditions to targeted lifestyle and nutritional intervention. Small, consistent changes produce measurable results relatively quickly.

Eat to Flatten the Curve

The goal is steady glucose — not spikes and crashes. This means prioritizing protein and healthy fat at every meal to slow glucose absorption, reducing refined carbohydrates and added sugars, and never eating carbohydrates alone. A breakfast of eggs and vegetables stabilizes blood sugar for hours; a breakfast of toast and juice starts the cortisol cascade before 9am.

Don’t Skip Meals

Skipping meals — especially breakfast — forces the body into a cortisol-driven glucose response that suppresses TSH and degrades T3 conversion. Three balanced meals with protein-forward snacks if needed keeps the cortisol-thyroid axis out of crisis mode

Time Carbohydrates Strategically

Carbohydrates are more efficiently managed earlier in the day when insulin sensitivity is higher, and when paired with movement. Evening high-carb meals contribute to overnight glucose instability and disrupt the circadian TSH rhythm that produces the reliable morning TSH values your doctor is relying on for dosing decisions.

Support Insulin Sensitivity with Key Nutrients

Several nutrients have well-documented roles in improving insulin sensitivity and stabilizing blood sugar — which in turn reduces the cortisol burden on the thyroid system:

- Chromium — enhances insulin receptor activity and improves cellular glucose uptake
- Cinnamon (as *Cinnamomum verum*) — supports insulin sensitivity and blunts post-meal glucose spikes
- Berberine — activates AMPK, the enzyme that regulates cellular energy and glucose metabolism; comparable in some studies to metformin
- Magnesium — required for over 300 enzymatic reactions including insulin signaling; deficiency is common and strongly associated with insulin resistance
- Alpha-lipoic acid — antioxidant that improves insulin-mediated glucose uptake and reduces oxidative stress in thyroid tissue
- Zinc — required for both insulin production and thyroid hormone synthesis; correcting deficiency supports both systems simultaneously

Targeting the Blood Sugar–Thyroid Connection

Barton Nutrition's CinnaChroma combines cinnamon and chromium — two of the most evidence-backed nutrients for blood sugar regulation — in a formula designed to support healthy insulin sensitivity and stable glucose levels. For anyone navigating thyroid dysfunction alongside blood sugar instability, reducing that cortisol-driven glucose rollercoaster is a meaningful first step toward feeling like yourself again.

→ Learn more about CinnaChroma at bartonsupplements.com



Way 6: What This Looks Like in Practice

Consider the pattern many thyroid patients describe: exhausted in the morning despite adequate sleep, struggling through the afternoon, craving sweets by 3pm, wired but tired at night. This is not just a thyroid symptom profile — it's a blood sugar and cortisol rhythm problem wearing a thyroid costume.

Or the patient whose TSH keeps fluctuating despite a stable medication dose — often because their cortisol levels are fluctuating with their blood sugar, altering the TSH reading their doctor is using to make dosing decisions.

Or the person with Hashimoto's whose antibody levels track almost perfectly with periods of dietary stress, sugar overconsumption, and the inevitable cortisol-driven immune dysregulation that follows.

In each case, blood sugar stability isn't a peripheral concern. It's central to why thyroid treatment is or isn't working.

The Bottom Line

Blood sugar swings don't just make you feel bad in the moment. They trigger a hormonal cascade — cortisol, then TSH suppression, then impaired T4-to-T3 conversion, then elevated reverse T3 — that undermines thyroid function at every level. For anyone with a thyroid condition, stabilizing blood sugar isn't optional background advice. It's a primary therapeutic target.

The tools to do it are well understood: whole-food nutrition, protein at every meal, strategic carbohydrate timing, and targeted nutritional support for insulin sensitivity. Get the blood sugar stable, and the thyroid — along with energy, mood, weight, and mental clarity — often follows.



The Leaky Gut–Thyroid Link: What’s Happening in Your Gut Could Be Driving Your Thyroid Problem

Your thyroid and your gut may seem unrelated. The science says otherwise and for millions of people with unexplained thyroid symptoms, the gut is exactly where the answers are hiding.

Most thyroid conversations start and end with hormones. Your TSH is off, your T4 is low, here’s a prescription. But a growing body of research and the clinical experience of integrative and functional medicine practitioners points to a much more upstream driver of thyroid dysfunction: the health of your gut.

This isn’t a fringe idea. The gut houses the majority of your immune system, regulates key steps in thyroid hormone metabolism, and when compromised can trigger the very autoimmune cascade that destroys thyroid tissue in conditions like Hashimoto’s thyroiditis. If you’ve been managing a thyroid condition for years without feeling truly well, your gut may be the missing piece of the conversation.

What Is Leaky Gut and Why Does It Matter?

The small intestine is lined with a single layer of epithelial cells, held together by structures called tight junctions.

These junctions act as a selective barrier: letting nutrients through while keeping bacteria, undigested food particles, and toxins out of the bloodstream.

When that barrier becomes permeable a state commonly called “leaky gut”, or intestinal hyperpermeability those tight junctions loosen. Partially digested proteins, microbial fragments, and inflammatory compounds slip into circulation. The immune system, encountering these foreign substances, mounts a response.

In susceptible individuals, that immune response doesn’t always stay targeted.

Molecular mimicry where immune antibodies produced against food proteins cross-react with the body's own tissues is one of the most well-documented mechanisms by which leaky gut drives autoimmune disease.

For the thyroid, the implications are significant.

Common Causes of Intestinal Permeability

- Gluten and highly processed foods
- Chronic NSAID use (ibuprofen, aspirin)
- Antibiotics and acid-suppressing medications (PPIs)
- Glyphosate (herbicide residue common in conventionally grown foods)
- Chronic psychological stress
- Alcohol
- Gut infections and dysbiosis (imbalanced microbiome)

How Leaky Gut Triggers Thyroid Autoimmunity

The best-documented pathway from leaky gut to thyroid disease runs through Hashimoto's thyroiditis, the leading cause of hypothyroidism in developed countries.

Here's how the chain unfolds:

Step	What Happens
Gut barrier breaks down	Tight junctions loosen; partially digested proteins and bacterial fragments enter the bloodstream.
Immune alarm fires	The immune system flags these foreign particles and produces antibodies.
Molecular mimicry occurs	Antibodies produced against gliadin (wheat protein) structurally resemble thyroid tissue proteins, so the immune system attacks both.
TPO & TG antibodies rise	The hallmark antibodies of Hashimoto's appear, signaling immune assault on the thyroid gland
Thyroid tissue is damaged	Over time, immune-mediated inflammation destroys hormone-producing cells, leading to hypothyroidism.

This is why gluten elimination is one of the most consistently effective dietary interventions for Hashimoto's patients. It doesn't just reduce digestive symptoms it removes a key molecular trigger for autoimmune attack.

The Gut's Role in Thyroid Hormone Metabolism

The gut-thyroid connection isn't only about autoimmunity. The gut microbiome plays a direct and measurable role in how your body processes and uses thyroid hormones.

T3 Recycling and Gut Bacteria

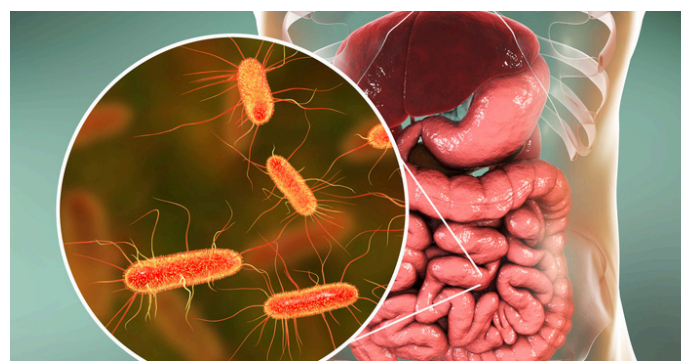
Much of the T3 circulating in your bloodstream doesn't come directly from the thyroid it comes from the conversion of T4 in peripheral tissues, including the liver and gut wall. Additionally, conjugated T3 excreted in bile is deconjugated by gut bacteria and reabsorbed a process called enterohepatic recirculation. Healthy gut flora are essential to this recycling loop. When the microbiome is disrupted, this recirculation is impaired and circulating T3 can drop, contributing to symptoms of hypothyroidism even when thyroid hormone production appears normal.

SIBO and Thyroid Function

Small intestinal bacterial overgrowth (SIBO) a condition in which bacteria colonize the small intestine where they don't belong has a notably high prevalence in people with hypothyroidism.

The relationship likely runs both ways:

- Low thyroid hormone slows gut motility, creating conditions for bacterial overgrowth
- SIBO-driven inflammation and malabsorption worsen thyroid hormone status and nutrient deficiencies



Nutrient Absorption

A compromised gut is a nutrient-poor gut. The minerals most critical to thyroid hormone production iodine, selenium, zinc, and iron are all absorbed in the small intestine. Leaky gut and dysbiosis reduce absorption efficiency, meaning even a good diet and supplement regimen can underperform if the gut isn't healthy enough to absorb what you're taking in.

Signs Your Gut May Be Behind Your Thyroid Symptoms

The overlap between gut dysfunction and thyroid dysfunction is significant enough that the two are easily confused or, more commonly, both are present and only one is being treated.

Watch for this combination of signals:

- Thyroid symptoms that persist despite normal or treated labs
- Bloating, gas, constipation, or loose stools
- Diagnosed or suspected IBS, SIBO, or IBD
- Hashimoto's or elevated TPO antibodies
- Known gluten sensitivity or celiac disease

- History of frequent antibiotic use
- Skin issues: eczema, psoriasis, rashes, acne
- Food sensitivities that seem to be multiplying
- Fatigue and brain fog that track with what you eat
- Autoimmune conditions elsewhere (rheumatoid arthritis, lupus, type 1 diabetes)

If several of these apply, the gut deserves serious investigation alongside or even before further thyroid intervention.



Healing the Gut to Support the Thyroid

The clinical framework for gut repair in the context of thyroid and autoimmune disease follows a logical sequence:

- **Remove → Replenish → Repair → Reinoculate**

Remove

Eliminate key gut irritants:

- Gluten (especially for Hashimoto's patients)
- Highly processed foods
- Refined sugar
- Alcohol
- NSAIDs (where clinically appropriate)
- Unnecessary antibiotic use

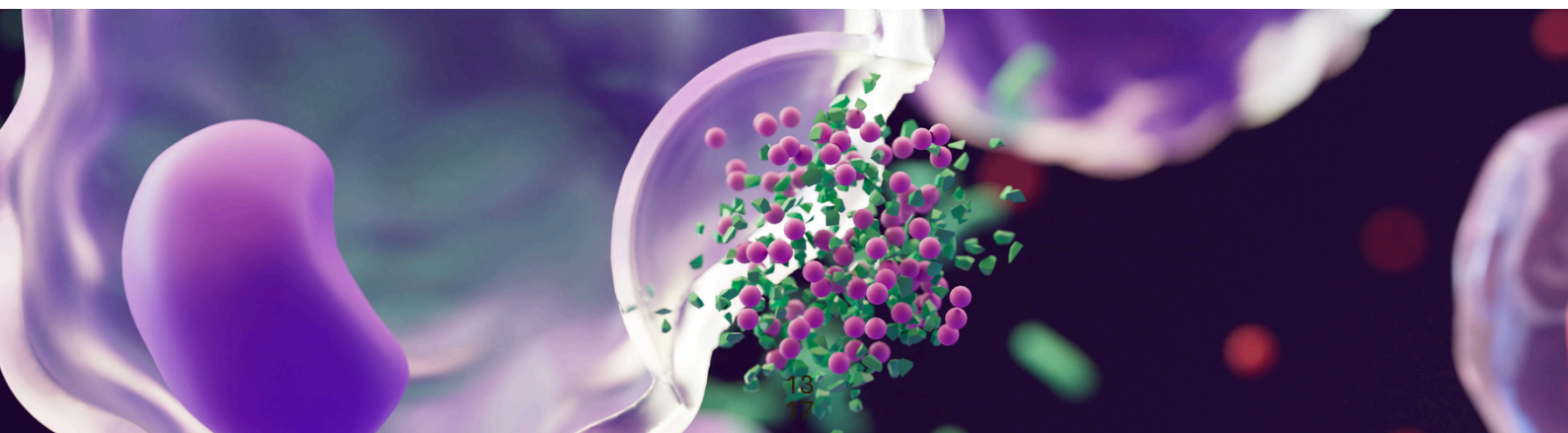
If SIBO or parasitic infection is suspected, targeted antimicrobial treatment comes first.

Replenish

Restore digestive capacity with enzymes (proteases, lipases, amylases) and, where needed, support for stomach acid production.

Key nutrients to assess and correct include:

- Selenium
- Zinc
- Vitamin D
- Iron



Repair

Support the structural integrity of the gut lining with:

- L-glutamine
- Zinc carnosine
- Collagen peptides
- Quercetin

Reducing systemic inflammation through diet and stress management accelerates this process.

Reinoculate

Rebuild a diverse, healthy microbiome with probiotic strains that support gut barrier function and immune modulation.

Prebiotic fiber from vegetables, legumes, and whole foods feeds beneficial bacteria and supports microbiome diversity over time.

Where Gut Repair Meets Thyroid Recovery

Barton Nutrition's Healthy Gut Restore was formulated to support the four pillars of gut recovery:

- Digestive enzyme activity
- Gut lining integrity
- Microbiome balance
- Reduced gut inflammation

For anyone dealing with thyroid issues especially Hashimoto's or persistent hypothyroid symptoms addressing the gut isn't a side conversation. It's often the most direct path to feeling better.

→ Learn more about Healthy Gut Restore at bartonsupplements.com



What the Research Says

The science connecting gut health and thyroid function is not speculative. Several well-characterized findings support this relationship:

- Hashimoto's patients have measurably higher rates of intestinal permeability than healthy controls
- Celiac disease is found at significantly higher rates in people with autoimmune thyroid disease
- Gluten-free diets have been shown in multiple studies to reduce TPO antibody levels in Hashimoto's patients
- Hypothyroidism is associated with significantly increased risk of SIBO, with some studies showing prevalence as high as 54%
- The gut microbiome directly modulates deiodinase enzymes responsible for T4-to-T3 conversion

The Bottom Line

The thyroid doesn't operate in isolation. It depends on a healthy gut to:

- Absorb the nutrients it needs
- Process and recycle hormones efficiently
- Keep the immune system from turning against it

For anyone treating a thyroid condition without fully addressing gut health, the leaky gut–thyroid link offers more than an explanation it offers an opportunity.

A healthier gut can mean:

- Better nutrient absorption
- Lower immune reactivity
- Improved hormone metabolism
- A better environment for thyroid recovery

For many people, that's the difference between managing symptoms and actually recovering.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. This article is for informational purposes only and does not constitute medical advice. Always consult a qualified healthcare provider before making changes to your health regimen.

Hashimoto's: Why Your Immune System Is Attacking Your *Thyroid*



Most thyroid patients are told they have a “hormone problem.” The truth is more complicated and more fixable than that.

If you've been diagnosed with hypothyroidism, there's a good chance no one told you why your thyroid stopped working. You were handed a prescription for levothyroxine, told your TSH was high, and sent on your way. But for most people in the developed world, the real diagnosis isn't a sluggish thyroid, it's Hashimoto's thyroiditis, an autoimmune disease in which your own immune system is the aggressor.

Understanding this distinction changes everything about how you approach treatment, nutrition, and long-term recovery.

What Is Hashimoto's Thyroiditis?

Hashimoto's is an autoimmune condition in which the immune system produces antibodies that attack the thyroid gland.

Over time, this immune assault damages the cells that produce thyroid hormones, leading to progressively lower output — and all the symptoms that come with it:

- Fatigue
- Brain fog
- Weight gain
- Cold intolerance
- Hair loss
- Depression
- Constipation

Hashimoto's is now the leading cause of hypothyroidism in developed countries. It affects women 7–10 times more often than men and can appear at any age, though it is most common in women between 30 and 50.

Standard diagnosis relies on blood tests showing elevated:

TPO antibodies (thyroid peroxidase antibodies)
Anti-thyroglobulin antibodies

These are markers of immune activity directed at the thyroid. Many practitioners never order these tests, choosing to manage the TSH number alone. That's like treating a fire by complaining about the smoke.

The Immune System Is the Story Not the Thyroid

Here is the critical distinction most conventional care misses: In Hashimoto's, the thyroid isn't broken on its own.

The immune system is broken, and the thyroid is the casualty. This means giving more thyroid hormone while sometimes necessary to manage symptoms does nothing to stop the underlying attack. The antibodies keep climbing. The gland keeps taking damage. And the patient is left wondering why they still feel terrible on medication.

A better question is:

Why is the immune system misfiring in the first place?

Research and clinical experience consistently point to several root causes.

1. Gut Permeability (“Leaky Gut”)

When the intestinal lining becomes porous, partially digested food proteins and bacterial fragments escape into the bloodstream, triggering widespread immune activation. This is one of the most well-documented upstream drivers of autoimmune disease.

2. Epstein-Barr Virus (EBV) Reactivation

Chronic or reactivated EBV has a strong association with Hashimoto's. The immune system's attempt to fight the virus may result in misdirected antibody production against thyroid tissue.

3. Vitamin D Deficiency

Vitamin D is a critical immune regulator. Deficiency is linked to many autoimmune conditions, including Hashimoto's, and is extremely common in modern indoor lifestyles.

4. Chronic Stress & Cortisol Dysregulation

Elevated cortisol disrupts the balance of Th1 and Th2 immune pathways, creating conditions favorable to autoimmune activity.

5. Environmental Toxins

PFAS (“forever chemicals”), BPA, pesticides, and halides like fluoride and bromide can disrupt immune balance and interfere with thyroid physiology.

6. Gluten Sensitivity

Molecular mimicry between gliadin (a protein in wheat) and thyroid tissue proteins is a documented mechanism in Hashimoto's. Many patients see antibody levels drop on a gluten-free diet.

The Gut-Thyroid Axis: A Closer Look

Of all the root-cause drivers, gut health deserves special attention because it is both profoundly impactful and profoundly under-addressed in standard thyroid care. Approximately 70–80% of the immune system lives in and around the gut. The intestinal lining acts as a barrier between the outside world (food, bacteria, toxins) and your bloodstream. When that barrier breaks down from processed food, glyphosate, NSAIDs, stress, or antibiotic overuse undigested particles slip through. The immune system encounters these fragments and mounts a defense. In genetically susceptible individuals, that defense can become misdirected at self-tissue, including the thyroid.

There's also a direct hormonal connection. The gut microbiome helps with the conversion and recycling of thyroid hormones. Healthy gut bacteria help deconjugate T3, returning it to circulation. A disrupted microbiome can impair this process, contributing to low T3 even when thyroid output appears adequate. Research also shows people with hypothyroidism have a significantly increased risk of small intestinal bacterial overgrowth (SIBO).

Symptoms may include:

- Bloating
- Gas
- Fatigue
- Nutrient malabsorption

The thyroid-gut relationship runs in both directions.

Symptoms That Go Beyond the Thyroid

Because Hashimoto's is a systemic autoimmune condition, symptoms often extend far beyond simple hypothyroidism.

Many patients live with symptoms no single specialist seems to connect:

- Debilitating fatigue that doesn't improve with rest
- Brain fog and poor concentration
- Anxiety and depression
- Joint pain and muscle aches

THYROID

- Digestive issues (bloating, constipation, IBS)
- Skin problems (dryness, eczema, hives)
- Weight gain resistant to diet and exercise
- Hair thinning, especially outer eyebrows
- Cold sensitivity or temperature swings
- Heart palpitations during flares

If your labs are “normal” while these symptoms persist, Hashimoto’s may not have been fully investigated.

What a Complete Evaluation Should Include

Test	What It Reveals
TSH, Free T4, Free T3	Full thyroid hormone picture
Reverse T3	Functional hypothyroidism at cellular level
TPO Antibodies	Immune attack on thyroid enzyme
Anti-Thyroglobulin Antibodies	Secondary autoimmune marker
Vitamin D (25-OH)	Immune regulation status
Iron / Ferritin	Needed for thyroid hormone production
Selenium	Supports T4 → T3 conversion
Cortisol (AM)	Adrenal stress and immune imbalance
GI MAP / Stool Test	Gut flora, pathogens, leaky gut markers

A Root-Cause Approach to Hashimoto’s

Because Hashimoto’s is driven by immune dysfunction not just hormone deficiency effective management requires addressing the terrain, not just the thyroid.

1. Repair the Gut

Restoring intestinal integrity is one of the most powerful interventions in autoimmune thyroid care.

This includes removing gut irritants such as:

- Gluten
- Processed foods
- NSAIDs

Support tools may include:

- L-glutamine
- Zinc carnosine
- Probiotics
- Digestive enzymes

2. Correct Key Nutrient Deficiencies

Selenium (200 mcg/day as selenomethionine) is especially important.

It helps:

- Support T4 → T3 conversion
- Reduce TPO antibodies
- Protect the thyroid from oxidative stress

3. Calm the Immune System

Anti-inflammatory nutrition is foundational.

Reduce:

- Processed foods
- Sugar
- Seed oils

Supportive lifestyle changes include:

- Quality sleep
- Daily sunlight exposure
- Stress management
- Nervous system regulation

Stress reduction is not optional, cortisol dysregulation actively fuels autoimmunity.



4. Reduce Toxic Burden

Reduce exposure to:

- Fluoride
- Bromide
- Chlorine
- PFAS
- BPA
- Phthalates

Practical starting points:

- Filter water
- Reduce plastic food contact
- Eat whole foods

Supporting Your Gut to Support Your Thyroid

If gut health is central to Hashimoto's, supporting the gut becomes non-negotiable.

Barton Nutrition's **Healthy Gut Restore** was formulated to support:

- Digestive enzyme function
- Microbiome balance
- Gut lining repair

For people navigating Hashimoto's, gut support isn't just helpful.

It's often where recovery begins.

→ Learn more at
bartonsupplements.com

Can Hashimoto's Be Reversed?

Short answer:

Antibody levels can often be significantly reduced. Symptoms can go into remission.

In some cases, medication can even be reduced or eliminated when root causes are properly addressed.

The thyroid may not fully regenerate if extensive damage has occurred.

But the immune attack can often be quieted.

This requires treating the person, not just the lab value.

That means:

- Repairing the gut
- Correcting nutrient deficiencies
- Reducing inflammation
- Lowering toxic burden

This path is more demanding than simply taking a pill and rechecking TSH in six months.

But for many Hashimoto's patients, it's the only path that leads to lasting improvement.

The Bottom Line

Hashimoto's thyroiditis is **not a thyroid problem with an immune footnote.**

It is an immune problem that has targeted the thyroid.

Effective care means building a strategy from the inside out:

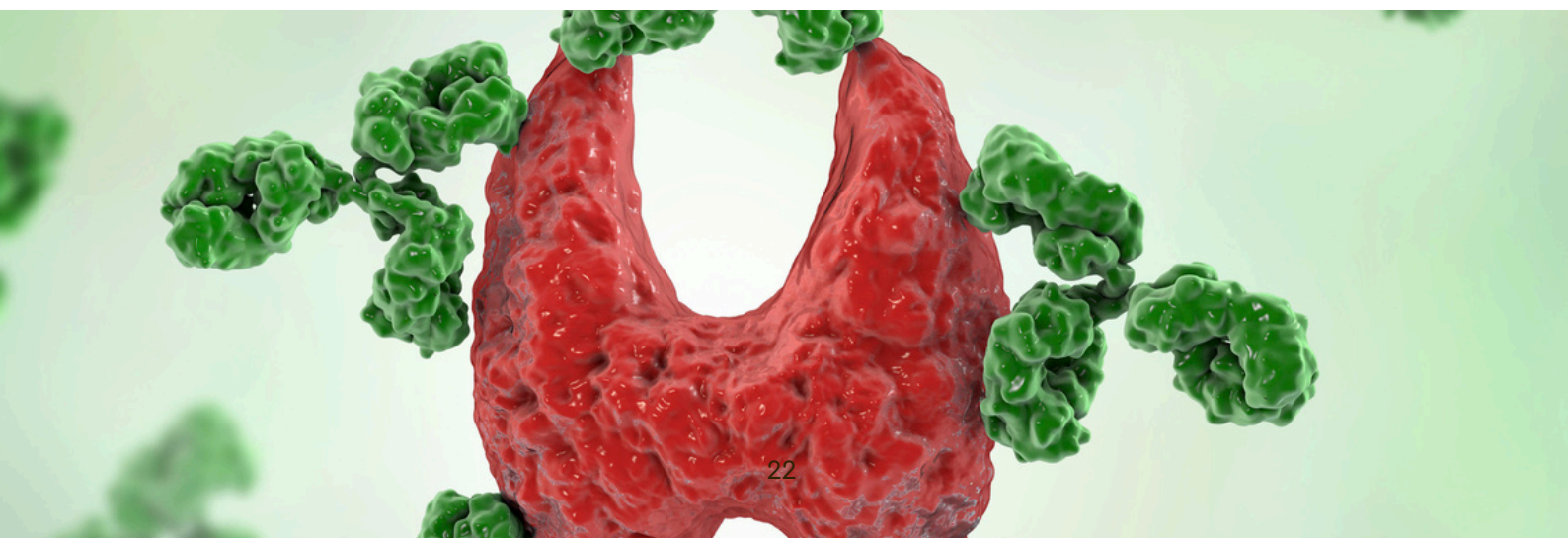
- Gut integrity
- Immune balance
- Targeted nutrition
- Reduced inflammatory burden

The thyroid cannot heal in a body that is still attacking it.

But when the immune system gets what it needs — a repaired gut, the right nutrients, a lower toxic load, and a less inflamed internal environment — the attack often begins to quiet.

That's when real recovery becomes possible.

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure, or prevent any disease. This article is for informational purposes only and does not constitute medical advice. Always consult a qualified healthcare provider before making changes to your health regimen.





Your Healthiest Year Starts Now

The natural path to better health just got easier.

Shop New Lower Prices



Our Promise To You

Our formulas are trusted by thousands and we're confident you'll love them, too.

There is ZERO risk when you try any of our products. If you aren't satisfied, for any reason, we'll provide a full refund of your purchase price (minus shipping).

Our award-winning customer service team is happy to serve you in any way we can. Feel free to contact us at [866-942-3288](tel:866-942-3288) with any questions you may have.

WELCOME TO OUR [FREE](#)

Live Q&A Webinar

With Dr. Scott Saunders MD from Barton Nutrition

Register for the Free Barton Nutrition Webinar

Wednesdays at 1pm CT

