

Hashimoto's Symptom-to-Root-Cause Map

Match your symptoms to likely root causes, the labs to request, and the cofactors that make them work.

START HERE: The two tests that confirm Hashimoto's. Antibodies aren't on the symptom rows below because they don't cause your symptoms. They confirm the autoimmune attack behind everything else. If you see yourself in more than one section, that's your reason to request both: **TPO Antibodies** (optimal <35 IU/mL, aiming for a downward trend) and **TgAb / Thyroglobulin Antibodies** (optimal <1 IU/mL). Some women only show one, so ask for both. Full details in the [Hashimoto's + Hormone Essential Labs Cheat Sheet](#).

GUT & IMMUNE				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Constipation	Low Free T3, magnesium	Free T3 Magnesium RBC	3.5–4.4 pg/mL 5.5–7.0 mg/dL	Vitamin C; hydration; probiotics
Acid reflux / GERD	Low stomach acid, gut dysbiosis (common in Hashimoto's)	Comprehensive stool test H. pylori test	Qualitative Qualitative	Zinc carnosine; probiotics; digestive enzymes
Food intolerances	Leaky gut / intestinal permeability, gut dysbiosis	Comprehensive stool test IgG food sensitivity panel	Qualitative Qualitative	L-glutamine (gut lining); probiotics; zinc carnosine
Recurring fungal infections	Immune dysregulation, gut dysbiosis, zinc, vitamin D	Zinc Vitamin D Comprehensive stool test	80–120 mcg/dL 60–80 ng/mL Qualitative	Probiotics; vitamin A; molybdenum (Candida)
Recurring UTIs	Immune dysregulation, zinc, vitamin D	Zinc Vitamin D Urine culture	80–120 mcg/dL 60–80 ng/mL Qualitative	Probiotics; D-mannose (bacterial); vitamin C
Sluggish detox / chemical & food sensitivities	Impaired liver detox (Phase I/II), low glutathione, amino acid depletion, poor T4 → T3 conversion	Liver panel (ALT, AST, GGT) Free T3 Reverse T3	ALT/AST <25 • GGT <20 U/L 3.5–4.4 pg/mL Under 15 ng/dL	NAC / glutathione (cysteine, glycine, glutamine); milk thistle; B vitamins; magnesium; molybdenum
WEIGHT & METABOLISM				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Weight gain / inability to lose	Low Free T3, insulin resistance, cortisol	Free T3 Fasting glucose + insulin Cortisol AM	3.5–4.4 pg/mL 72–85 mg/dL / <5 uIU/mL 15–20 mcg/dL	Chromium (insulin sensitivity); magnesium; zinc
Slowed metabolism	Low Free T3, Reverse T3 high	Free T3 Reverse T3	3.5–4.4 pg/mL Under 15 ng/dL	Selenium (T4 → T3 conversion); zinc; iodine
High cholesterol	Low thyroid function; low estrogen in menopause also raises LDL	TSH Free T3 Free T4 Estradiol	1.0–2.0 mIU/L 3.5–4.4 pg/mL 1.0–1.5 ng/dL 75–200 pg/mL	Selenium; iodine; magnesium; fiber

ENERGY & BRAIN				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Fatigue / exhaustion	Ferritin, B12, vitamin D, cortisol, Free T3	TSH Free T3 Free T4 TPO Ab Ferritin B12 Cortisol AM Vitamin D	1.0–2.0 mIU/L 3.5–4.4 pg/mL 1.0–1.5 ng/dL <35 IU/mL 90–110 ng/mL 700–900 pg/mL 15–20 mcg/dL 60–80 ng/mL	Iron + vitamin C (ferritin); magnesium (B12 activation); vitamin K2 (D3)
Brain fog / difficulty concentrating	Low Free T3, B12, magnesium, omega-3, elevated homocysteine	Free T3 B12 Magnesium RBC Homocysteine	3.5–4.4 pg/mL 700–900 pg/mL 5.5–7.0 mg/dL <7 mcmol/L	Zinc (T3 conversion); B6, folate (homocysteine); healthy fats
Memory problems	Low thyroid hormones, B12, vitamin D	Free T3 Free T4 B12 Vitamin D	3.5–4.4 pg/mL 1.0–1.5 ng/dL 700–900 pg/mL 60–80 ng/mL	Same as brain fog above
Insomnia	Low magnesium, low progesterone, dysregulated cortisol	Magnesium RBC Cortisol AM Progesterone	5.5–7.0 mg/dL 15–20 mcg/dL 5–20 ng/mL (luteal)	B6 (magnesium activation); vitamin D (progesterone synthesis)
HAIR, SKIN & NAILS				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Hair loss / thinning	Ferritin, zinc, selenium, Free T3, biotin; low estrogen in menopause is a major driver too	Ferritin Zinc Selenium Free T3 Estradiol	90–110 ng/mL 80–120 mcg/dL 125–150 mcg/L 3.5–4.4 pg/mL 75–200 pg/mL	Iron + vitamin C; zinc (avoid phytates at same meal); biotin—stop 3 days before labs
Dry / thinning skin	Low Free T3, essential fatty acids, vitamin A; estrogen loss thins skin and drops collagen in menopause	Free T3 Vitamin A Estradiol	3.5–4.4 pg/mL 50–80 mcg/dL 75–200 pg/mL	Zinc (vitamin A conversion); healthy fats; vitamin C (collagen)
Brittle nails	Zinc, selenium, biotin, ferritin	Zinc Ferritin Selenium	80–120 mcg/dL 90–110 ng/mL 125–150 mcg/L	Iron + vitamin C; zinc
Skin breakouts / rashes	Gut dysbiosis, zinc deficiency, cortisol	Zinc Cortisol AM Comprehensive stool test	80–120 mcg/dL 15–20 mcg/dL Qualitative	Vitamin A; probiotics; zinc
Itchy skin / ears	Fungal overgrowth, zinc, essential fatty acids	Zinc Comprehensive stool test	80–120 mcg/dL Qualitative	Probiotics; vitamin A; omega-3s
Puffy face / eyes	Low Free T3, low albumin	Free T3 Free T4 Comprehensive metabolic panel	3.5–4.4 pg/mL 1.0–1.5 ng/dL Albumin 4.0–5.0 g/dL	Selenium; iodine

HORMONAL				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Irregular / heavy periods	Estrogen dominance, low progesterone, thyroid dysfunction	Full hormone panel Free T3 Progesterone	See provider 3.5–4.4 pg/mL 5–20 ng/mL (luteal)	Vitamin B6; magnesium; zinc; DIM (estrogen metabolism)
Hot flashes / night sweats	Low estrogen (menopause / perimenopause) is the most common cause. Thyroid hormone swings, or over-replacement with thyroid medication, can also disrupt temperature.	Estradiol FSH Free T3 Free T4 TSH	75–200 pg/mL 25–135 mIU/mL (post-meno) 3.5–4.4 pg/mL 1.0–1.5 ng/dL 1.0–2.0 mIU/L	Vitamin E; omega-3s; B6; magnesium
Decreased libido	Low testosterone, low DHEA, adrenal dysregulation	Testosterone DHEA-S Cortisol AM	20–50 ng/dL 150–300 mcg/dL 15–20 mcg/dL	Zinc; vitamin D; magnesium
Vaginal dryness	Low estrogen, low DHEA	Estradiol DHEA-S	75–200 pg/mL 150–300 mcg/dL	Vitamin E; omega-3s
Loss of bone density †	Low estrogen (menopause) is the primary driver; low vitamin D, low magnesium	Vitamin D DEXA scan Estradiol Magnesium RBC	60–80 ng/mL T-score qualitative 75–200 pg/mL 5.5–7.0 mg/dL	Vitamin K2; magnesium; boron; calcium

† A note on the thyroid-bone link: untreated hypothyroidism on its own isn't a well-established cause of bone loss, and research actually ties it to slower bone turnover, not thinning. The real risk shows up with **over**-replacement, meaning too much thyroid medication pushing your TSH too low. If your bone density is dropping, have your provider rule out an over-medicated dose before assuming the thyroid itself is to blame.

JOINT, MUSCLE, HEART & NERVE SYMPTOMS				
SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Joint pain / muscle aches	Vitamin D, magnesium, inflammation	Vitamin D hs-CRP Magnesium RBC	60–80 ng/mL Under 0.5 mg/L 5.5–7.0 mg/dL	Vitamin K2 (D3 cofactor); magnesium; omega-3s
Muscle weakness	Low Free T3, magnesium, potassium	Free T3 Magnesium RBC Comprehensive metabolic panel	3.5–4.4 pg/mL 5.5–7.0 mg/dL Potassium 4.0–4.5 mEq/L	B complex; vitamin D; electrolytes
Nerve symptoms / numbness or tingling	B12, magnesium, vitamin D	B12 Magnesium RBC Vitamin D	700–900 pg/mL 5.5–7.0 mg/dL 60–80 ng/mL	Folate (B12 cofactor); B6; intrinsic factor (B12 absorption)
Sensitivity to cold	Low Free T3, low ferritin, low B12	Free T3 Ferritin B12	3.5–4.4 pg/mL 90–110 ng/mL 700–900 pg/mL	Iron + vitamin C; selenium
Slowed heart rate / palpitations ‡	Low Free T3, magnesium, potassium	Free T3 Magnesium RBC Comprehensive metabolic panel	3.5–4.4 pg/mL 5.5–7.0 mg/dL Potassium 4.0–4.5 mEq/L	Electrolytes; B complex

‡ Low thyroid usually slows the heart, but skipped or irregular beats can still feel like palpitations even when your pulse is slow. A fast, racing heart that comes with heat, sweating, or anxiety points more toward **too much** thyroid hormone (over-replacement or hyperthyroid) than classic hypothyroidism. Flag that pattern for your provider.

WHY HASHIMOTO'S AND MENOPAUSE SYMPTOMS OVERLAP. Thyroid hormone reaches nearly every cell in your body, so when it's off, the ripple effects touch mood, metabolism, skin, sleep, and heart rhythm. Those are many of the same systems menopause affects, which is exactly why guessing doesn't work. Depression, thinning hair, and high cholesterol can each come from low thyroid, low estrogen, or both at once. A racing heart usually points to too much thyroid hormone, not too little. Bone loss tracks more with over-medication than with low thyroid. Adrenal stress can mimic either one. This is why you test: run the labs first, then work backward to the real cause.

MOOD & MENTAL HEALTH

SYMPTOM	LIKELY DEFICIENCY / ROOT CAUSE	LABS TO REQUEST	OPTIMAL RANGE (functional)	KEY COFACTORS
Depression / mood changes	Low Free T3, vitamin D, B12, ferritin, elevated homocysteine; falling estrogen in perimenopause also raises depression risk	Free T3 Vitamin D B12 Ferritin Homocysteine Estradiol	3.5–4.4 pg/mL 60–80 ng/mL 700–900 pg/mL 90–110 ng/mL <7 mcMol/L 75–200 pg/mL	Magnesium; zinc; B6 + folate (homocysteine); omega-3s
Anxiety	Low Free T3, elevated Reverse T3, adrenal dysregulation	Free T3 Reverse T3 Cortisol AM DHEA-S	3.5–4.4 pg/mL Under 15 ng/dL 15–20 mcg/dL 150–300 mcg/dL	Magnesium; B complex
Mood swings	Estrogen/progesterone imbalance, adrenal dysregulation	Full hormone panel Cortisol AM DHEA-S	See provider 15–20 mcg/dL 150–300 mcg/dL	Vitamin B6; magnesium; zinc

WHY COFACTORS MATTER. You can take the right supplement and still not absorb it. Cofactors are what your body needs to actually use what you're giving it. Take vitamin D without K2, or iron without vitamin C, and you'll wonder why nothing is working. The optimal column shows what each test should look like; the cofactors column shows what to pair.

THE LEAKY GUT WILDCARD — READ THIS BEFORE YOU SUPPLEMENT. You can be taking every supplement on this list and still not absorb any of it if your gut lining is compromised. Intestinal permeability is extremely common in Hashimoto's and blocks nutrient absorption at the source. If you're supplementing consistently and your labs aren't moving, start here: a comprehensive stool test and an IgG food sensitivity panel.

Pair this with the Hashimoto's + Hormone Essential Labs Cheat Sheet. Use the Labs Cheat Sheet to understand each test. Use this map to connect your symptoms to which tests to request. Together they give you a real starting point for the conversation with your doctor. Download both at HashimotosHQ.com

SOURCES & REFERENCES

- Wentz, I. *Hashimoto's Protocol*. HarperOne, 2017.
- Wentz, I. *Hashimoto's Thyroiditis: Lifestyle Interventions*. Wentz LLC, 2013.
- Gröber U, et al. "Magnesium in Prevention and Therapy." *Nutrients*. 2015;7(9):8199–8226.
- Gorini F, et al. "Nutritional Management of Hashimoto's Thyroiditis." *Nutrients*. 2022;14(9):1952.
- Bianco AC, et al. "Iodothyronine Deiodinases." *Physiol Rev*. 2019;99(3):1433–1503.
- Zimmermann MB, Köhrle J. "Iron and selenium deficiencies on iodine and thyroid metabolism." *Thyroid*. 2002;12(10):867–78.
- Chaker L, et al. "Hypothyroidism." *Lancet*. 2017;390(10101):1550–1562.
- Liontiris MI, Mazokopakis EE. "A concise review of Hashimoto thyroiditis." *Hell J Nucl Med*. 2017;20(1):51–56.
- El Khoudary SR, et al. "Menopause Transition and Cardiovascular Disease Risk: A Scientific Statement From the American Heart Association." *Circulation*. 2020;142(25):e506–e532.
- Stall GM, et al. "Accelerated bone loss in hypothyroid patients overtreated with L-thyroxine." *Ann Intern Med*. 1990;113(4):265–269.
- Roó E, et al. "Skin, hair and beyond: the impact of menopause." *Climacteric*. 2022;25(5):434–442.
- Freeman EW, et al. "Associations of hormones and menopausal status with depressed mood." *Arch Gen Psychiatry*. 2006;63(4):375–382.

Optimal ranges are functional targets used by integrative practitioners and may differ from your lab's standard reference range. Confirm with your provider.