



HASHIMOTO'S PROTOCOL

Root Cause Testing Guide

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ROOT CAUSE TESTING GUIDE

1: Lab Testing: Thyroid Function	2
2: Lab Testing: Food Intolerance	2
3: Lab Testing: Gut Function and Infections	3
4: Lab Testing: Stealth Infections	3
5: Lab Testing: Adrenal Function	4
6: Lab Testing: Nutrients	4
7: Lab Testing: Genetic Testing and Nutrient Extraction	5
8: Lab Testing: Toxins	5
9: Get Involved in Your Care	6
10. Patient Self-Order Lab Testing Companies	6
11. Test Overview	7



LAB TESTING

Lab testing, keeping track of your symptoms, monitoring basal temperatures, and journaling will help determine what problems you are having and how to address them.

Testing can help determine if your interventions are working and can help establish a course of action.

1. LAB TESTING: THYROID FUNCTION

The [TSH](#), [Free T3](#) and [Free T4](#) tests are a part of the basic thyroid panel that I recommend. These tests tell you if your body has enough thyroid hormone available for use. They can help to determine if you need supplemental thyroid hormone, if your medication dosage needs to be adjusted, if it would be beneficial to switch medications, and if you're converting T4 to T3 properly.

You may also want to test [reverse T3 levels](#). One reason for poor T4 to T3 conversion could be excess conversion to reverse T3. Elevated reverse T3 can be due to stress and/or adrenal issues, nutrient deficiencies, and toxins.

There are two types of thyroid antibodies that can indicate Hashimoto's, and help to determine the aggressiveness of the autoimmune attack. These are Thyroid Peroxidase antibodies, and Thyroglobulin antibodies. Testing [TPO/TG antibody](#) levels every 1-3 months may be helpful in determining progress from interventions.

You can order a complete package of the thyroid function tests that I recommend [HERE](#).

An ultrasound of the thyroid gland is another optional test, that you may want to discuss with your practitioner. This test can help to detect changes in the thyroid associated with Hashimoto's, even if antibodies are not present on lab tests.

2. LAB TESTING: FOOD INTOLERANCE

Food intolerances or sensitivities are a type of hypersensitivity to different foods, where a reaction can occur up to 72 hours after the food is consumed. Tests for food sensitivities are measured through IgG (Immunoglobulin G) and IgA (Immunoglobulin A) responses.

IgG antibodies are what I am most concerned with in Hashimoto's. These are the same type of antibodies formed to thyroid tissues. These intolerances may cause systemic inflammation and perpetuate intestinal permeability.



A variety of labs offer food intolerance testing, and I have heard mixed impressions from practitioners regarding these tests. The tests that have been extremely reliable, in my experience, are the [96](#) and [184](#) panel food intolerance tests offered by Alletess Medical Laboratory, which measure IgG antibodies to different foods.

Many have also found the ALCAT test helpful. The [ALCAT 150 Food Sensitivity and Intolerance Panel](#) is a simple blood test that measures the body's cellular reactivity to foods. However, the recommended four-day rotation diet is very difficult to implement.

3. LAB TESTING: GUT FUNCTION AND INFECTIONS

Our stool can tell us quite a bit about the state of the gut. One of the most comprehensive and advanced tests is called [GI MAP](#) test. It provides a report on your gastrointestinal microbiota DNA, by detecting pathogens (bacterial, parasitic, and viral), as well as intestinal health biomarkers, that could be disturbing normal microbial balance.

SIBO (Small Intestinal Bacterial Overgrowth) is where we have too much bacteria in our small intestine. Basically, we are supposed to have a lot of bacteria in our large intestine, but not a lot in our small intestine. When we have too much, this actually results in the intestinal walls starting to separate in an effort to try to get rid of this bacteria. This is a huge, huge contributor to leaky gut and is present in about 50% of those with Hashimoto's. You can test for SIBO through the [3 Hour SIBO Lactulose test](#).

4. LAB TESTING: STEALTH INFECTIONS

Many different viruses have been implicated in Hashimoto's. However, the ones that I have seen most commonly in my practice are [EBV \(Epstein Barr Virus\)](#), [CMV \(Cytomegalovirus\)](#), [Human Herpes Viruses](#), and [Mycoplasma](#).

There are a variety of tests for EBV. One test is the VCA (Viral Capsid Antigen). If VCA is positive in IgG, that means you've either had or currently have the infection; if it's IgM positive, this means that the infection has reactivated. There's another test known as nuclear antigen, and then there's the early antigen. The early antigen is one of the best tests to do for EBV. A positive early antigen means that the infection is active or reactivated. I would recommend that you [test for all three](#) of these, as sometimes only one may come out positive.

You may also want to consider Lyme disease testing. Lyme disease is caused by tick bites and may present with bulls-eye rash. The Borrelia bacteria that infects the tick has 16 proteins that resemble proteins on the thyroid gland. Testing and treatment can be complex, so you'll want to find a Lyme literate doctor to work with. There are two test panels for Lyme, which you can order through Ultra labs: [Lyme Disease Antibodies \(IgG, IgM\)](#), Immunoblot and [Lyme Disease Ab with Reflex to Blot \(IgG, IgM\)](#).

My [Root Cause Infections Panel](#) combines testing for many of the common stealth infections, including Lyme, CMV, EBV, and Herpes, into one panel.



5. LAB TESTING: ADRENAL FUNCTION

Adrenal testing is done by collecting saliva throughout the day, and can be very helpful in identifying the stage of adrenal fatigue. These tests can also show a deficiency in Secretory IgA. ZRT lab offers 4 cortisol and DHEA adrenal testing that I have found to be reliable and correlate to patient symptoms. Other companies I have used were not as accurate. You can order the Adrenal Stress Profile test, for a discounted price, [HERE](#).

6. LAB TESTING: NUTRIENTS

Nutrient depletions can sometimes happen due to conventional farming practices. Vegetables are currently grown in the same soil over and over again, which depletes nutrients in the soil. In turn, the fruit and vegetable crops become nutrient-depleted, and our fresh foods that we enjoy eating are no longer as nutritious as they should be.

Different medications can also induce nutrient depletion, and having poor digestion and food sensitivities can also contribute. These factors are going to cause inflammation and insufficient breakdown of foods. Therefore, we're not going to be able to extract the nutrients out of them.

A [Basic Nutrition Panel](#) can be performed to test for nutrient depletions, by ordering tests for specific nutrients, like ferritin, B12, etc. This is a basic panel that will test for [B12](#), [ferritin \(iron storage\)](#), [Vitamin D](#) and [CMP \(Complete Metabolic Panel\)](#) and [CBC \(Complete Blood Count\)](#). These tests should be covered by most insurance companies if ordered by your MD/DO/PA-C/NP. Most practitioners should be willing to order these labs for you (you can also self-order).

[Selenium](#) and [iodine](#) testing can be obtained from ZRT labs. One important consideration with the iodine test is, it's only going to tell you your levels based on your intake within the last few days, versus looking at overall deficiency. It's very highly reliant on your recent intake of iodine-rich foods or iodine supplements. So, it's something that is helpful but not extremely conclusive.

[SpectraCell labs](#) offer an advanced mineral testing option that I have found helpful as well.

7. LAB TESTING: GENETIC TESTING AND NUTRIENT EXTRACTION

Some individuals with Hashimoto's may have a gene variation called MTHFR (Methylenetetrahydrofolate Reductase) that prevents them from properly activating folic acid. This gene variation is present in up to 55% of the European population, and seems to be more common in those with hypothyroidism.

Individuals with low activity of the MTHFR enzyme may present with [elevated homocyste-](#)



ine levels, which have been associated with inflammation and heart disease, and potentially an impaired ability to detoxify. Nutrient deficiencies in Folate, B6 and B12 have been associated with elevated homocysteine.

These individuals often have a difficult time processing the folic acid that is present in most cheap supplements and added to processed foods, and may benefit from an activated version of folate, B6 and B12, such as methylfolate (also known as L-5-MTHF Folate), Pyridoxyl-5-Phosphate (P5P), and methylcobalamin, respectively.

ALCAT Labs offers [The Basic Methyl Detox Profile](#), which includes the genetic markers involved in methylation and homocysteine metabolism: MTHFR, MTR and COMT, for a total of 3 SNP's. This test can be done with either blood or buccal swab.

8. LAB TESTING: TOXINS

We are bombarded by toxins in our environment every day, from the air we breathe, to the water we drink, to the food we consume, to the products we use. Some of us may be unable to detoxify our bodies, leading to a perpetuation of autoimmunity.

Basic [Liver Function](#) testing is important in looking at how your body is processing these toxins.

ZRT Labs offers the [Elements Profile](#), which can help determine if you have high levels of iodine, bromine, arsenic and mercury in your body. I have also found the [Hair Toxic Element Exposure](#) (Doctor's Data Kit) to be very helpful in analyzing the presence of toxic metals in the body.

Mold is another toxin that can bring on autoimmune conditions in a variety of different people. This includes not just Hashimoto's, but any kind of autoimmune condition. It can bring on allergies, asthma, chronic fatigue, rheumatoid arthritis, and a whole different variety of chronic illness. It can also take up residence in the body and lead to issues like chronic sinusitis.

For mold testing, I recommend the [ALCAT Molds Sensitivity & Intolerance Panel](#), and the [GI Effects Profile](#) to test for yeast in the gut.

9. GET INVOLVED IN YOUR CARE

I encourage you to take charge of your health. Work with your practitioner to order the appropriate lab tests to help guide your treatment plan. Learn as much as you can about your condition.

Always be sure to get a copy of your own test results so that you can be empow-



ered and more involved in your own care. Don't be afraid to tell your doctor that you are not feeling well on current therapy and insist on getting better care.

There are plenty of [Hashimoto's doctors](#) out there that will provide the care you need, so don't be afraid to seek out a second opinion.

Here is a [sample letter](#) explaining the new guidelines for TSH, which may help to encourage your practitioner to consider testing and treating your thyroid.

10. PATIENT SELF-ORDER LAB TESTING COMPANIES

Some companies provide direct-to-consumer lab testing. I have successfully used the following companies for myself, and my clients:

- [Ulta Lab Tests](#) - Ulta labs offers numerous blood tests and comprehensive panels at a significant discount. You can also submit the labs to your insurance for reimbursement.
- [MyMedLab](#) - Offers various test panels, including the Alletess [96 Food Allergy IgG](#), and the [184 Food Allergy IgG](#).
- [Spectracell](#) - This lab offers the MTHFR, Telomere, and Nutritional lab tests. This is a kind of advanced test for looking at the nutrient levels in our cells, and they cover vitamins, minerals, amino acids, and antioxidants, different antioxidant function, fatty acid, carbohydrate, metabolism, as well as different types of metabolites.
- [Direct Labs Portal](#) - I've set up a special channel to order some of the other tests that I am unable to provide (i.e. GI Effects Profile). The list of available tests can be viewed and ordered [HERE](#).
- For a full list of lab tests that I recommend, click [HERE](#).

*If your state has a law against patients self-ordering labs, or laws against functional medicine testing, lab companies sometimes recommend mailing the test kit to a friend/family member who lives across state lines, scheduling blood draws/lab testing outside of the state, and mailing the test kits back from a different state to comply with state laws. This can be an inconvenient workaround, but it can give you access to the tests you need.



11. TEST OVERVIEW

THYROID FUNCTION

- TSH
- TPO Antibodies
- Thyroglobulin Antibodies
- Free T4
- Free T3
- *Reverse T3 (optional)*
- TSH, Free T3, Free T4, Reverse T3, TPOAb, TgAb (full panel)
- *Thyroid Ultrasound (optional)*

FOOD INTOLERANCE

- Alletess 96 Foods Panel
- Alletess 184 Foods Panel
- ALCAT 150 Food Sensitivity

GUT FUNCTION AND INFECTIONS

- GI MAP-Diagnostic Solutions Kit
- GI Effects Comprehensive Profile (Three Day Collection)-Genova
- Comprehensive Stool Analysis (Great Plains Laboratory)
- 3 Hour SIBO Lactulose test

STEALTH INFECTIONS

- EBV
- CMV
- Mycoplasma
- Human Herpes Viruses
- Lyme Antibodies Immunoblot
- Lyme Antibodies with Reflex to Blot
- Root Cause Infections Panel (CMV, EBV, Herpes, Lyme)



ADRENAL FUNCTION

- Adrenal saliva profile
- Adrenal antibodies

NUTRIENTS

- Vitamin D levels
- B12
- CBC with differential
- CMP
- Ferritin
- Urinary Selenium
- Urinary Iodine
- Micronutrient testing
- Root Cause Basic Nutrition Panel (CMP, CBC, Vit D, Ferritin, B12)

GENETIC TESTING AND NUTRIENT EXTRACTION

- MTHFR gene
- Homocysteine

TOXINS

- Liver Function
- Elements Profile
- Mineral Hair Analysis (Doctor's Data Kit)
- Molds Sensitivity & Intolerance

