

Thyroid Inflammation

DNA Health Report

REPORT CATEGORIES —



THYROID



INFLAMMATION &
AUTOIMMUNITY

Sample Client

Report date: 15 January 2026

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DISCLAIMER

This report does not diagnose this or any other health conditions. Please talk to a healthcare professional if this condition runs in your family, you think you might have this condition, or you have any concerns about your results.

Personal information

NAME

Sample Client

SEX AT BIRTH

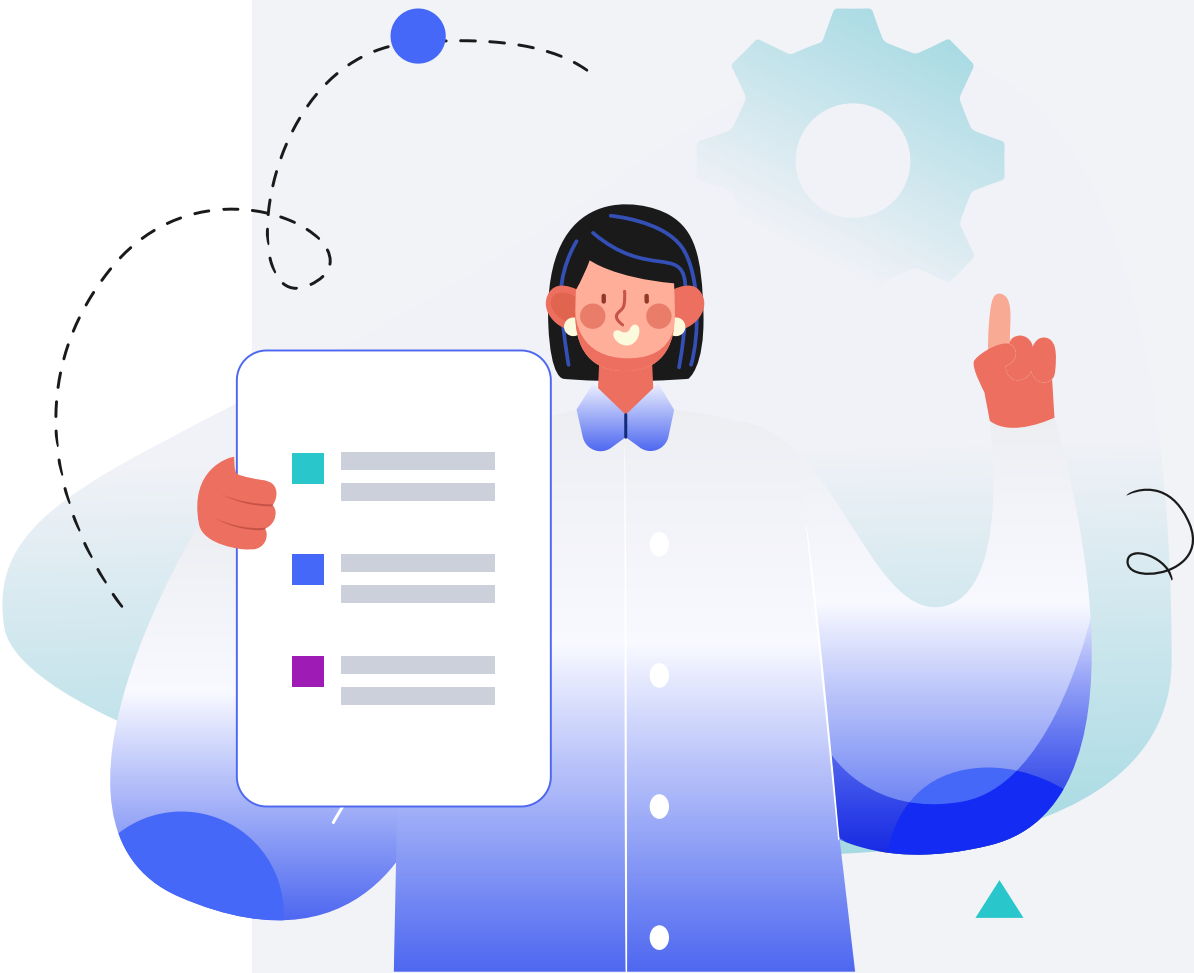
Male

HEIGHT

5ft 5" 165cm

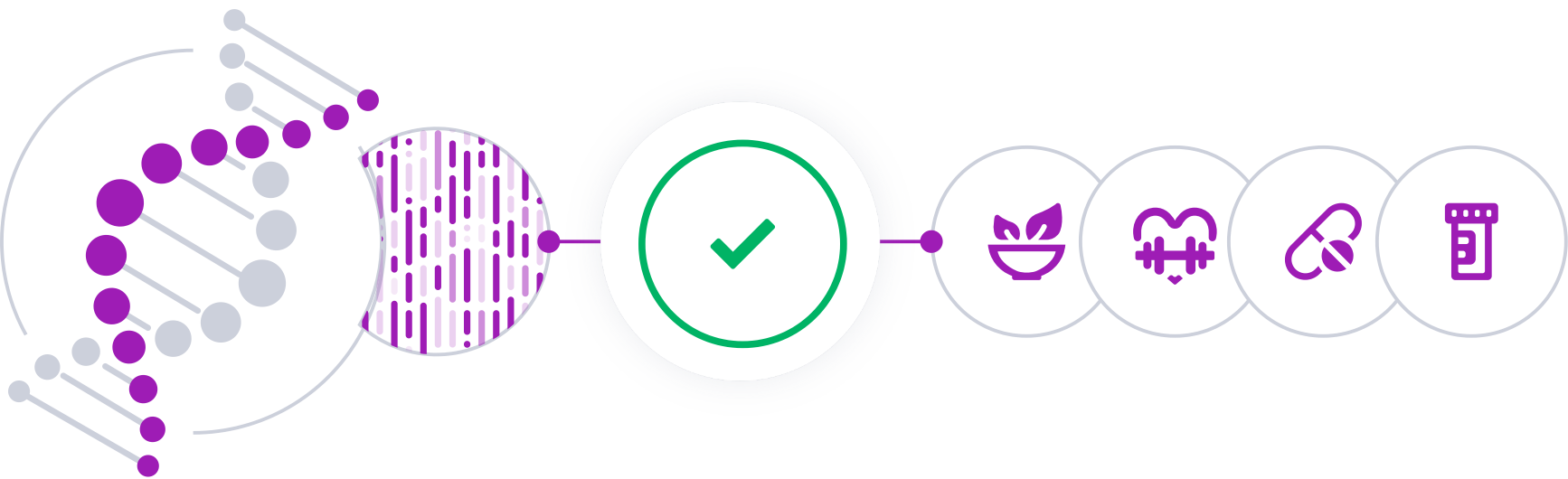
WEIGHT

137lb 62kg



How this works

Our Wellness Reports analyze how your DNA influences your health.
We then use this analysis to give you personalized risk estimates and recommendations.

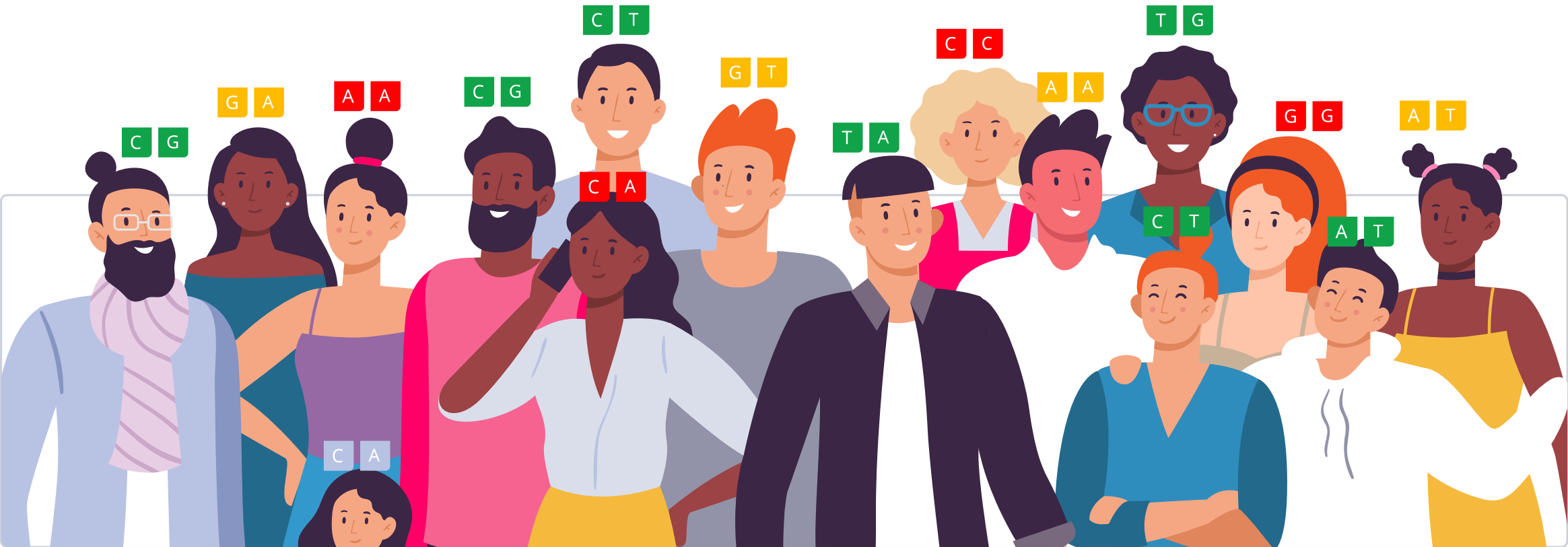


Similarly, our Trait Reports look at how your DNA influences your traits.



Your DNA is like an instruction manual — it contains a lot of information.
You can think of it as a blueprint for your body.

Genetic variants are parts of DNA that differ from person to person. Some can make you more vulnerable to certain health issues, while others may influence traits such as eye color.



We use artificial intelligence and machine learning to analyze all this information.
We then summarize your results as a risk score or display it on a gauge.

In total, we analyze up to 83 million genetic variants.

When we give a risk score, the risk icon tells you if you are at a higher or lower risk compared to other people:



Genotype color info:

AA

You don't have any risk alleles

AA

You have 1 risk allele

AA

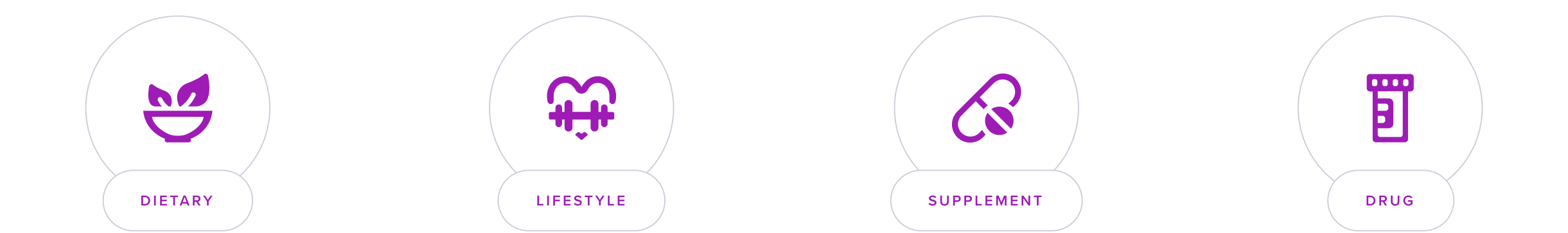
You have 2 risk alleles

Your risk is also displayed as a percentile. This will tell you how your risks compare to our sample population. The lower your percentile number, the lower your risk. The "50th percentile" would be an average risk.

Similarly, the gauge tells you your relative risk score compared to our sample population, or it indicates a specific trait or haplotype you are more likely to have based on your genetic variants.

When applicable, we also list top evidence-based recommendations that may help lower your risk. The focus is on recommendations that may be of benefit to you, based on your genetics.

Our recommendations come in four categories: lifestyle, diet, supplements and drugs.
The following icons tell you which category a recommendation falls into:



Our team of scientists also ranks each recommendation.
We rank based on impact and the strength of evidence in the medical literature.

Impact shows how strongly a recommendation will affect your health in a certain area.
Evidence is how much scientific support there is for the recommendation. Rankings are from 1 to 5 (low to high):



Impact

Impact scores range from 1-5. These scores reflect how much of an effect each recommendation can have. An impact score of 5 predicts the biggest effect.

When a recommendation affects something we can measure, we use those measurements to assign the impact score. For example, a recommendation that decreases cholesterol by 20% will have a higher impact score than one that decreases it by 5%.

Some recommendations affect things that we cannot directly measure, like stress or mood. For these, the impact score is based on how well they work relative to other recommendations and standard treatments. The best ones get the highest scores.

If there is a lot of research that shows a recommendation works especially well for your genotype, the impact score gets increased.

Recommendation Evidence

- 5 / 5
- Recommendations that are considered effective and generally recommended by experts and medical bodies.
-
- 4 / 5
- Recommendations that are considered likely effective and that have multiple independent meta-analyses and a great many studies supporting them.
-
- 3 / 5
- Recommendations that are considered possibly effective and have many studies supporting them
-
- 2 / 5
- Recommendations that have insufficient evidence, with two or several clinical trials supporting them, or many studies but with ambiguous results.
-
- 1 / 5
- Recommendations that have insufficient evidence, with a single clinical trial, or with many studies most of which didn't find support for the recommendation.
-
- 0 / 5
- No evidence in humans.

Genotype-specific Evidence

- High-quality
- Direct evidence that a recommendation helps more in people with your gene variant (many clinical trials, a few large clinical trials, or a meta-analysis).
-
- Medium-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a few clinical trials or one large clinical trial).
-
- Low-quality
- Direct evidence that a recommendation helps more in people with your gene variant (a single clinical trial or more trials with inconsistent results).
-
- Indirect
- A recommendation may help more in people with your gene variant because it targets a specific gene or protein affected by your variant (e.g., MTHFR, dopamine).
-
- In theory
- A recommendation may help more in people with your gene variant because it targets a specific mechanism affected by your variant (e.g., inflammation, oxidative stress).

Some things to keep in mind:

- Genetics doesn’t play a considerable role in a condition or a trait.
- There is not enough research available to estimate a genetic predisposition.
- There are technical limitations to estimating or presenting a genetic predisposition.
- The topic is sensitive, and a genetic predisposition should only be estimated and presented by a healthcare professional.

Introduction

Thyroiditis refers to a group of disorders that cause inflammation of the thyroid, a butterfly-shaped gland located at the base of the neck. This inflammation can lead to an array of symptoms and affect the thyroid's ability to produce hormones, which are critical to regulating the body's metabolism.

In some cases, thyroiditis can result in an overactive thyroid (hyperthyroidism), if the gland releases too many hormones, or an underactive thyroid (hypothyroidism), if not enough hormones are produced. These fluctuations in hormone levels can lead to symptoms such as weight changes, mood swings, fatigue, and heat intolerance.

Diagnosis and Treatment

The most common forms of thyroiditis include Hashimoto's thyroiditis, an autoimmune disease where the body's immune system mistakenly attacks the thyroid; postpartum thyroiditis, which can occur after childbirth; and subacute thyroiditis, which usually follows a viral infection. Diagnosis may involve blood tests to measure thyroid hormone levels, as well as antibody tests to detect autoimmune activity.

Treatment depends on the type and severity of thyroiditis, ranging from observation and symptom management to medications like levothyroxine for hypothyroidism or beta-blockers for hyperthyroidism symptoms.



MORE LIKELY

More likely to have thyroid inflammation based on 348,866 genetic variants we looked at



Your top variants that most likely impact your genetic predisposition:

GENE	SNP	GENOTYPE
TRIB2	rs1534422	GG
SESN3	rs4409785	TC
ZNF668	rs57348955	AG
TNFRSF14	rs2843403	TC
PTPN22	rs2476601	GG
PTPN22	rs6679677	CC
CTLA4	rs11571297	TT
TNF	rs1800629	GG
TNF	rs1799964	TT
BACH2	rs72928038	GG
LPP	rs13093110	CC
IL2RA	rs706779	TC
GXYLT1	rs4768412	CC

The number of "risk" variants in this table doesn't necessarily reflect your overall result.

Your Recommendations

Your recommendations are prioritized according to the likelihood of it having an impact for you based on your genetics, along with the amount of scientific evidence supporting the recommendation.

You’ll likely find common healthy recommendations at the top of the list because they are often the most impactful and most researched.

DOSAGE		DOSAGE			
1	Maintain Optimal Vitamin D Levels	1000 iu	2	Balance Iodine Intake	
3	Thymomodulin		4	Thyroid Extract	
5	Dietary Selenium		6	Turmeric	
7	Avoid Triggers		8	Kelp	500 mg
9	Avoid Food Triggers		10	Low-Goitrogenic Diet	
11	Avoid Perchlorate		12	Curcumin	500 mg
13	Iodine	150 mcg	14	Selenium Supplements	50 mcg
15	Autoimmune Protocol (AIP) Diet				

1



Maintain Optimal Vitamin D Levels

IMPACT

3 / 5

EVIDENCE

3 / 5

How to implement

Check your vitamin D levels, they should ideally be in the 30-66 ng/mL range. If your levels are lower than that, take a vitamin D supplement, 1000-4000 IU daily, to reach an optimal range.

TYPICAL STARTING DOSE

1000 iu

Description

Vitamin D, often referred to as the "sunshine vitamin," can be synthesized by the skin when exposed to sunlight, as well as being found in fish, eggs, and fortified milk. It helps regulate calcium absorption, promoting strong bones and a healthy immune system. Vitamin D deficiency can lead to conditions like rickets in children and osteoporosis in adults.

Your body needs [vitamin D](#) for strong bones. Vitamin D also plays a role in [\[R\]](#):

- Mood
- Immunity
- Heart health
- Blood sugar control

[Sunlight](#) is our main source of vitamin D. Experts recommend getting at least **5-15 minutes of midday sun, 2-3 times per week**. People with darker skin and those living at high latitudes may need longer periods of sun exposure [\[R\]](#), [\[R\]](#).

Foods like fish, eggs, and fortified milk provide small amounts of vitamin D. **People lacking vitamin D should consider taking a supplement** [\[R\]](#).

How it helps

People with autoimmune thyroiditis, especially Hashimoto’s disease, tend to have lower vitamin D levels and a higher risk of vitamin D deficiency [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Vitamin D supplements may help balance their immune response. However, not all studies found this benefit [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#).

Please note: *Experts recommend getting 600-800 IU of vitamin D per day. Medical bodies recommend against taking more than 4,000 IU per day. Vitamin D is not a replacement for thyroid medication. Talk to your doctor before using any supplements for thyroid issues* [\[R\]](#).

2



Balance Iodine Intake

IMPACT1 / 5

EVIDENCE1 / 5

How to implement

To balance iodine intake, consume foods rich in iodine such as fish, dairy, and eggs, aiming for about 150 micrograms per day for adults. Consider using iodized salt in cooking, but be mindful not to exceed the daily limit. Regularly assess iodine levels, especially if you are pregnant, lactating, or have thyroid issues.

Description

Iodine intake is essential for thyroid function and is obtained through iodized salt and foods like seafood and dairy products. Balanced iodine intake is necessary to prevent thyroid disorders.

[Iodine](#) is an element that helps make thyroid hormones. It's important for [\[R\]](#), [\[R\]](#), [\[R\]](#), [\[R\]](#):

- Thyroid function
- Healthy pregnancy
- Cognitive function

Iodine can be found in foods like [\[R\]](#):

- Seaweed
- Enriched bread
- Fish (cod)
- Dairy
- Iodized salt

Adults should be getting **150 micrograms** of iodine per day. People who are deficient can take iodine as a supplement. However, most people in the US and other developed countries don't need to take extra iodine. Excess iodine can be harmful [\[R\]](#), [\[R\]](#).

How it helps

Balancing iodine intake helps regulate thyroid hormone production, essential for maintaining metabolic processes. Adequate levels prevent further inflammation and promote recovery, while excess iodine can exacerbate thyroid dysfunction.

3



Thymomodulin

IMPACT1 / 5

EVIDENCE1 / 5

Description

Thymomodulin is a protein that is found in the thymus gland. It is thought to help the body fight off infection and disease. It has also been shown to improve immune function and reduce inflammation.

How it helps

Thymomodulin may enhance immune function by modulating the activity of T lymphocytes, potentially leading to a reduction in autoimmune reactions that contribute to thyroid inflammation.

4



Thyroid Extract

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Thyroid extract, a drug prescribed for hypothyroidism, is typically taken orally once daily, preferably on an empty stomach, 30 minutes to 1 hour before breakfast. Your healthcare provider will determine the exact dosage based on your condition and response to treatment. It's important to take this medication consistently at the same time each day.

Description

thyroid extract is a medication derived from the thyroid glands of animals, primarily used to treat thyroid hormone deficiencies. It provides essential thyroid hormones like T3 and T4, helping regulate metabolism, energy production, and overall body function.

How it helps

Thyroid extract supplementation aids in restoring normal hormone levels, offsetting deficiencies caused by thyroid inflammation. This helps to regulate metabolism, improve energy levels, and alleviate symptoms associated with thyroid hormone deficiency.

5



Dietary Selenium

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate selenium-rich foods into your daily diet, such as Brazil nuts, seafood, and organ meats. Eating 1-2 Brazil nuts a day can meet the daily selenium requirement for most adults.

Description

Selenium is a trace mineral found in various foods, including nuts, seeds, and seafood. It is an essential nutrient that plays a crucial role in maintaining the body's antioxidant defenses and supporting thyroid function.

[Selenium](#) supports [\[R\]](#):

- Reproduction
- Thyroid function
- DNA production
- Immune response

Adults should be getting **55 micrograms** of selenium per day. Good sources of selenium include [\[R\]](#):

- Brazil nuts
- Fish
- Meat
- Eggs
- Rice
- Oatmeal

How it helps

Dietary selenium helps manage thyroid inflammation by reducing oxidative stress and enhancing antioxidant defenses, thus supporting optimal thyroid function and immune health. Its role in thyroid hormone metabolism further aids in regulating overall thyroid activity.

6



Turmeric

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Incorporate 500-1000 mg of turmeric into your daily diet, either by adding ground turmeric spice to your food, such as in curries, soups, and smoothies, or by taking a dietary turmeric supplement. This should be done daily for at least 8 weeks to observe potential health benefits.

Description

Turmeric is a bright yellow spice derived from the root of the *Curcuma longa* plant. It contains curcumin, a potent antioxidant and anti-inflammatory compound. Turmeric is used for various health conditions, including reducing inflammation, alleviating joint pain, and supporting digestive health.

How it helps

Turmeric helps manage thyroid inflammation by inhibiting pro-inflammatory cytokines and reducing oxidative stress, thereby potentially alleviating symptoms and supporting overall thyroid function.

7



Avoid Triggers

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Identify substances or environmental factors that exacerbate your condition, such as specific foods, stress, or allergens, and actively avoid them. This may involve reading food labels, asking about ingredients when eating out, and making changes to your home or work environment to reduce exposure to identified triggers.

Description

A "trigger" is something that prompts or worsens the symptoms of a health condition. They can be something you eat or come into contact with. Triggers can lead to a wide range of symptoms, such as gut and skin problems and migraines.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

A **food trigger** can be something you eat.

A **physical trigger** can cause a change to your body through physical contact. It can include swimming in cold water or something you touch or inhale [\[R, R, R\]](#).

Triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [\[R, R, R, R, R, R, R, R\]](#):

- Gut problems
- Skin problems
- Migraines

How it helps

Avoiding known triggers can reduce the inflammatory response in individuals with thyroid inflammation, thereby alleviating symptoms such as fatigue, pain, and hormonal imbalances. By identifying and steering clear of specific triggers, patients may experience a more stable and manageable condition.

8



Kelp

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a kelp supplement daily, ensuring the dosage aligns with the product's label, typically ranging from 600 to 1000 micrograms of iodine. It's important to not exceed the recommended dosage to avoid potential thyroid issues. Use for ongoing nutritional support, especially if your diet lacks iodine.

TYPICAL STARTING DOSE

500 mg

Description

Kelp is a type of seaweed rich in iodine and other minerals. Incorporating kelp into the diet may help support thyroid function and provide essential nutrients.

Kelp is a source of iodine, vitamins K, A, C, E, and B-vitamins, along with some thiamin, riboflavin, and niacin. The highest type is kombu kelp, which contains 2,984 mcg of iodine per seaweed sheet (1 gram).

How it helps

Kelp supplementation can enhance thyroid function by providing a natural source of iodine, which is essential for the synthesis of thyroid hormones. Adequate iodine levels can help reduce inflammation and support overall thyroid health.

9



Avoid Food Triggers

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Identify foods that trigger negative reactions in your body, such as digestive issues, allergies, or headaches, and eliminate them from your diet entirely. This may require keeping a food diary for a few weeks to observe patterns and might involve cutting out common triggers like dairy, gluten, soy, or certain additives. Continuously monitor and adjust your diet to avoid these triggers as long as the symptoms persist.

Description

Food triggers are specific substances or ingredients in one's diet that can exacerbate or induce adverse reactions, such as allergies, sensitivities, or digestive issues, often leading to symptoms like inflammation, bloating, or discomfort.

A "trigger" is something that prompts or worsens the symptoms of a health condition.

Food triggers can lead to a wide range of symptoms in people who are sensitive to them. These may include [R](#), [R](#), [R](#), [R](#):

- Gut problems
- Skin problems
- Migraines

How it helps

Avoiding food triggers in cases of thyroid inflammation helps reduce systemic inflammation and decreases the likelihood of exacerbating symptoms. This dietary management can lead to improved thyroid function and overall health.

10



Low-Goitrogenic Diet

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Consume fewer goitrogenic foods, such as broccoli, Brussels sprouts, cabbage, and cauliflower, particularly in their raw form. If these are to be included in your diet, prefer cooking them as it reduces their goitrogenic effect. Aim for a balanced intake of non-goitrogenic fruits and vegetables daily.

Description

A low-goitrogenic diet may be recommended for individuals with thyroid conditions to minimize the impact of goitrogens on thyroid function, supporting better thyroid health and hormone regulation.

How it helps

A low-goitrogenic diet helps manage thyroid inflammation by reducing the intake of substances that can interfere with thyroid hormone synthesis and function. By minimizing goitrogens, this diet supports optimal hormone regulation and alleviates symptoms associated with thyroid dysfunction.

11



Avoid Perchlorate

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

To avoid perchlorate, check water quality reports for your area to ensure your drinking water does not contain high levels of perchlorate. Also, limit consumption of foods known to have higher perchlorate levels, such as leafy green vegetables, dairy products, and fruits, or opt for organic versions of these foods as organic farming standards restrict certain chemicals.

Description

Perchlorate is a chemical that can interfere with the thyroid gland's ability to produce thyroid hormone. This can lead to a variety of health problems, including hypothyroidism, developmental delays, and cancer. Avoiding perchlorate can help to protect your health.

How it helps

Avoiding perchlorate is crucial for individuals with thyroid inflammation, as this chemical disrupts the synthesis of thyroid hormones, thereby exacerbating inflammation and impairing thyroid function. Ensuring a perchlorate-free environment supports optimal hormone production and overall thyroid health.

12



Curcumin

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a 500 mg curcumin supplement daily with food. To enhance absorption, take it with a meal that contains fats or oils since curcumin is fat-soluble.

TYPICAL STARTING DOSE
500 mg

Description

Curcumin is a compound found in turmeric known for its anti-inflammatory and antioxidant properties. It has been studied for its potential to reduce inflammation, support joint health, and contribute to overall well-being.

[Turmeric](#) is a yellow spice from India. It may reduce inflammation and [oxidative stress](#) [R].

The most important active compound in turmeric is **curcumin**. People use curcumin for [R, R, R, R, R, R]:

- Joint pain
- Hay fever
- Mood
- High blood sugar
- Gut health
- Liver health

How it helps

Curcumin aids in managing thyroid inflammation by exerting potent anti-inflammatory effects, which can help reduce swelling and discomfort in the thyroid gland. Its antioxidant properties also support overall thyroid health and function.

13



Iodine

IMPACT

1 / 5

EVIDENCE

1 / 5

How to implement

Take a 150 mcg iodine supplement daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

150 mcg

Description

Iodine is an essential mineral necessary for thyroid function and overall metabolic health. Ensuring adequate iodine intake through diet or supplementation can help prevent thyroid disorders and promote overall well-being.

Adults should be getting **150 micrograms** of iodine per day. People who are deficient can take iodine as a supplement. However, most people in the US and other developed countries don’t need to take extra iodine.

Please note: *Iodine supplementation can be harmful and may make hypothyroidism (underactive thyroid) worse. Supplement only if deficient and instructed by your doctor.*

How it helps

Iodine supplementation supports thyroid health by providing the necessary substrate for hormone synthesis, which is critical in managing thyroid inflammation. Adequate iodine levels can help restore optimal thyroid function and mitigate the symptoms associated with inflammation.

14



Selenium Supplements

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Take 50 mcg of selenium supplements once daily, preferably with a meal to enhance absorption.

TYPICAL STARTING DOSE

50 mcg

Description

Selenium is a trace mineral found in Brazil nuts and many other foods as well as supplements. It is an essential nutrient that plays a crucial role in maintaining the body's antioxidant defenses and supporting thyroid function.

[Selenium](#) supports [\[R\]](#):

- Reproduction
- Thyroid function
- DNA production
- Immune response

Adults should be getting **55 micrograms** of selenium per day. Selenium supplements are available for people who can't meet their needs with a balanced diet [\[R\]](#).

How it helps

Selenium plays a crucial role in the health of the thyroid gland by participating in the production of thyroid hormones. Adequate selenium intake may help reduce inflammation and oxidative stress in the thyroid gland, potentially benefiting people with thyroiditis.

15



Autoimmune Protocol (AIP) Diet

IMPACT

0 / 5

EVIDENCE

0 / 5

How to implement

Eliminate grains, legumes, nuts, seeds, nightshades, dairy, eggs, coffee, alcohol, refined sugars, refined oils, food additives, and processed foods from your diet for a minimum of 30 days. After this elimination period, gradually reintroduce foods one at a time, every 5-7 days, to identify any that trigger symptoms.

Description

The Autoimmune Protocol (AIP) diet is a dietary approach designed to help individuals with autoimmune diseases identify and eliminate foods that may trigger inflammation and autoimmune responses. It focuses on nutrient-dense, anti-inflammatory foods while avoiding potential allergens and irritants.

How it helps

The Autoimmune Protocol Diet is designed to reduce inflammation and heal the gut. It eliminates foods that can trigger an immune response or inflame the gut lining. Since thyroiditis is often autoimmune in nature, following the AIP diet may help manage symptoms and potentially improve thyroid function by addressing the autoimmune aspect.

Next Steps

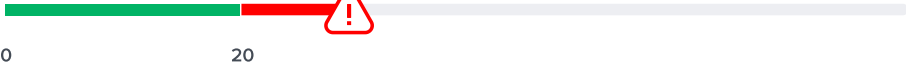
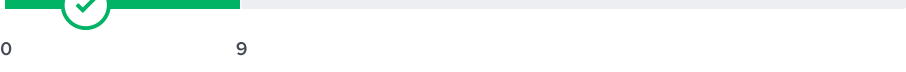
Remember, your genes only tell one important part of your health story!

Now that you've seen your DNA-based results for this health topic, let's take a look at other contributing factors.

Your lab results

Your lab results are impacted by the combined effect of your genes, environment and lifestyle.

Lab tests will give you the best picture of your current health status, while your genes provide insight into your health predispositions and which recommendations are best for you.

 TSH	2.76 mIU/mL		9 Nov 2025
 Thyroglobulin Antibodies	49 IU/mL		9 Nov 2025
 Thyroid Peroxidase Antibodies (TPO)	3.03 IU/mL		9 Nov 2025