# The Thyroid

# REJUVENATION PROTOCOL

Boost Your Metabolism, Burn Fat, Eliminate Fatique and Feel Amazing



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#### Introduction

The significance of the thyroid gland is paramount; essentially, every cell and gland in the body relies on its proper functioning to perform, and damage to this master organ can result in adverse outcomes that diminish health and overall quality of life.

Fortunately, the foods we eat and beverages we drink play a considerable role in the condition of our thyroid health. So, we're in a powerful position to guide our dietary choices in the direction of eating options that preserve and protect the health of the thyroid with the utmost urgency.

Plus, your metabolic health, ability to burn excess body fat efficiently, and whether your system maintains consistent and abundant energy levels throughout the day all trace back to the health of your thyroid.

# The Importance of the Thyroid

For starters, it's impressive to think that a butterfly-shaped gland seated at the base of the neck plays a primary role in regulating many vital processes like breathing, heart rate, and maintaining ideal body weight and BMI.

The thyroid gland is a critical component of the endocrine system, composed of a system of glands that generate, store, and disperse hormones into the bloodstream—conveying said hormones to the body's cells as needed.

#### Why You Need a Thyroid Gland

The thyroid gland is a critical regulator, moderating metabolic hormone function and other systems. As a result, many fixate on weight loss with metabolism, but this system's process is considerably broader than managing weight.

For starters, the metabolic process converts the nutrients we eat and drink into energy—a core function of maintaining health, satiety, and feelings of well-being.

And, in addition to its vital role in balancing the body's metabolic rate, the thyroid also controls heart, muscle, and digestive function, along with directly impacting brain development and bone integrity.

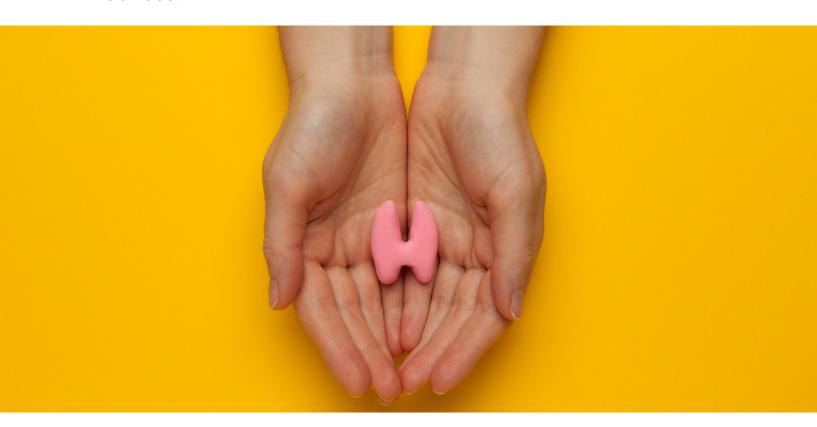
But remember that the gland's proper functioning relies on the presence of an adequate supply of iodine from your diet or supplemented sources—so don't ditch iodized table salt, exclusively for fancy mineral salt, just yet.

#### The Role of TS3, TS4, and TSH

Healthy thyroid function relies on the symbiotic relationship between the hypothalamus, pituitary, and thyroid gland. Plus, balanced thyroid health depends on thyrotropin-releasing hormone (TRH) from the pituitary gland converting to TSH (thyroid stimulating hormone) to promote proper thyroid function.

Subsequently, the primary thyroid hormones, T3, T4, and TSH, play a vital role in regulating various steps in generating thyroid functions—related explicitly to efficient iodine uptake and facilitating enzymatic steps and processes in the body.

And knowing the integral part played by the thyroid gland in supporting every other system's functioning, realizing the importance of maintaining balanced hormones in this category becomes glaringly obvious.



#### **Diseases and Disorders of the Thyroid**

Most cases of thyroid disease are associated with the following problems:

- Too much or too little thyroid hormone (hyperthyroidism and hypothyroidism, respectively).
- · Abnormal thyroid growth
- · Nodules or lumps within the thyroid
- · Thyroid cancer

#### Common Symptoms of Thyroid Disorder

Symptoms of an overactive thyroid (hyperthyroidism) can include:

- Experiencing anxiety, irritability and nervousness
- · Having trouble sleeping
- Losing weight
- Increased appetite
- An enlarged thyroid gland (goiter), possibly appearing as a swelling at the base of your neck
- Fatigue, muscle weakness
- Difficulty sleeping
- Skin thinning
- Fine, brittle hair
- Having muscle weakness, sweating and tremors
- Experiencing irregular menstrual periods or having your menstrual cycle stop
- Feeling sensitive to heat
- Having vision issues or eye inflammation

Symptoms of an underactive thyroid (hypothyroidism) can include:

- Feeling tired (especially if fatigued following a period of rest)
- · Gaining weight
- Experiencing forgetfulness
- · Having frequent and heavy menstrual cycles
- Dry and coarse hair
- · Having a hoarse voice
- Experiencing sensitivity to cold temperatures
- Elevated blood pressure
- Slowed heart rate
- Impaired memory
- Enlarged thyroid gland (goiter)
- Constipation
- Having vision issues or eye inflammation

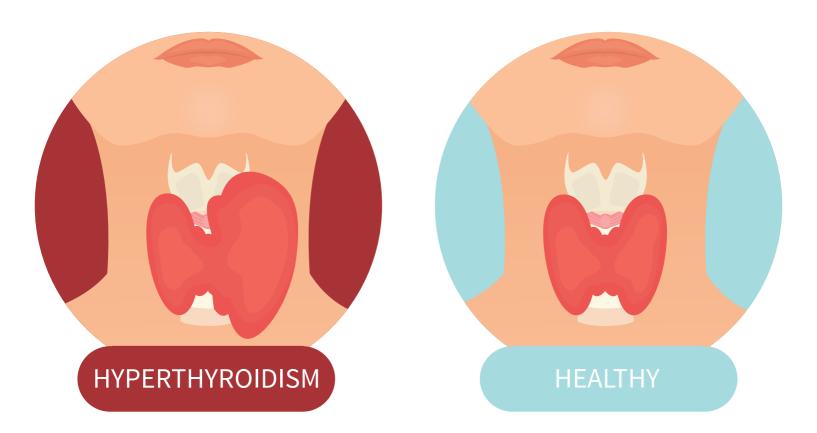
#### Some of the Most Common Thyroid Disorders

Symptoms of a thyroid disorder can differ vastly depending on the condition. But whether you're lethargic and finding it difficult to lose stubborn fat or notice you're losing significant amounts of weight without trying or experiencing anxiety more consistently, your thyroid hormones could be out of balance.

Here are some of the most common thyroid disorders and some of their associated symptoms:

 Goiters: Onset coughing, change in voice, or difficulty swallowing could all be signs of an enlargement of the thyroid, also known as goiter.

These masses are associated with abnormal cell growth in the gland. Their impact can vary vastly from benign to considerably more threatening in severity, so monitoring your situation with a professional is essential.



Also, eating certain nuts, non-GMO soy products, and even otherwise healthy cruciferous veggies like cabbage, broccoli, kale, cauliflower, and spinach contain goitrogens and may worsen symptoms of the condition—so beware of intake levels, especially if you notice new or worsening symptoms.

- **Hyperthyroidism:** Some may think unexplained weight loss despite giving into an increased appetite is a good thing, you're having your cake and eating it too, but what it might be is a symptom of an overactive thyroid.

Hyperthyroidism occurs when the thyroid gland produces too much of the hormone thyroxine. This imbalanced production often results in unexplained and rapid weight loss (which may be exciting at first but can become alarming when we learn that hyperthyroidism can cause an irregular heartbeat and other unfortunate effects.

Fortunately, there are medical interventions available to treat the imbalance. For example, physicians will often use anti-thyroid medications, radioactive iodine to slow the production of thyroid hormones, or opt for surgery to remove part or all of your thyroid gland to restore proper function.

- **Hypothyroidism:** Hypothyroidism results from insufficiently producing particular vital hormones with unfortunate effects. The symptoms of an underactive thyroid may be mild at first but can become progressively worse over time.

Suppose symptoms of low thyroid manifested throughout the past two years. In that case, you may have attributed weight gain and fatigue to the rigors of homeschooling, working remotely, and processing various forms of existential uncertainty simultaneously.

Still, these experiences can also be early telltale signs of hypothyroidism. And unless addressed appropriately by a clinician, underactive thyroid can lead to significant health conditions like heart disease, infertility, obesity, and worsening joint pain.

Over time, more tangible signs like a puffy face, dry skin, and thinning hair—not to mention further weight gain—could all also signal a slowed functioning of your body's master gland.

Luckily, there are effective synthetic thyroid hormone treatments that can help adjust your thyroid levels and help to achieve a more balanced state of well-being.

- **Solitary thyroid nodules:** Most of these thyroid nodules are considered benign colloid nodules and non-cancerous—those invasive cases are marginal. Nodules of this nature are enlarged and inflamed but rarely malignant.

- **Thyroid cancer**: Damage to cells in the thyroid gland may remain silent at first, but eventually, signs, like pain and swelling in the neck, can elude a deeper issue.

Although, thyroid cancer rarely causes signs or symptoms early in the disease. As thyroid cancer progresses, it may cause:

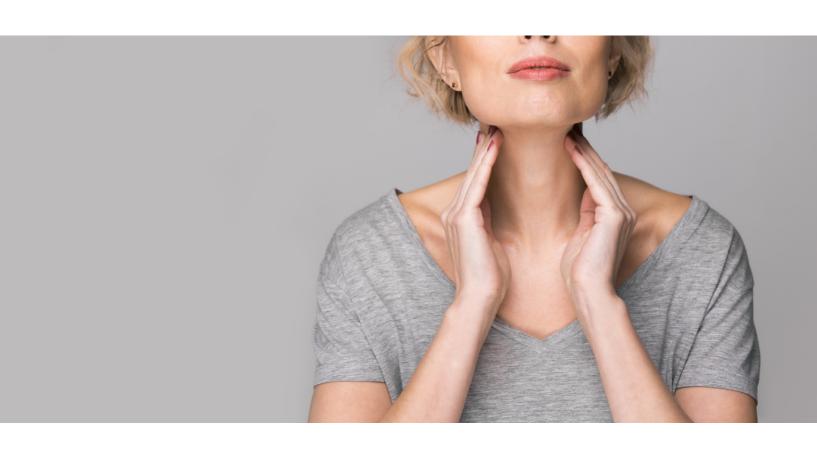
- A lump (nodule) detectable through the skin on your neck
- Changes to your voice, including increasing hoarseness
- Trouble swallowing
- Discomfort or pain in your neck and throat
- Swollen lymph nodes in your neck

There are various forms of thyroid cancer, with most being treatable if found in the early stages of development.

- **Thyroiditis:** Decreased thyroid function, or thyroiditis, is a hallmark of Hashimoto's disease and is associated with hypothyroidism.

Hashimoto's disease (a.k.a., chronic lymphocytic thyroiditis) is the leading cause of hypothyroidism. This thyroid disorder often affects middle-aged women. However, the thyroid condition can occur across the board in women, men, and also children in some instances.

Thyroid hormone replacement treatments, like synthetic levothyroxine, can address the adverse symptoms of thyroiditis as replacement treatments are highly effective at supporting normal thyroid hormone levels.



# **Thyroid Health and Metabolism**

An underactive thyroid gland causes a sluggish metabolism—resulting in a more challenging time losing excess weight for many. And the overall health of our thyroid plays a significant role in the state and performance of our metabolism.

Metabolism relates to how the body converts and assimilates nutrients we eat into energy. And our energy needs go beyond getting a good pump at the gym. Our metabolism produces power for essential functions like breathing, circulating blood, and regulating temperature in the body.

Balanced thyroid hormones in the body support a well-regulated metabolism and ease achieving and maintaining ideal body weight, enabling living a vitalized life with loads of energy.

However, deficits in hormone health directly affect the metabolism and may lead to unexplained and significant weight loss or gain. An unregulated metabolism and thyroid can also lead to feelings of weakness and fatigue, making it more challenging to live as actively as desired to accomplish your fitness goals.

Follow up with your physician if your thyroid hormone readings indicate a need for medical intervention. Still, you can also make some simple lifestyle changes to improve your metabolism, even in the face of thyroid health challenges:

- Get moving! Increasing activity may initially feel counterintuitive if your energy is constantly reading low. But getting moving, and elevating your heart rate regularly, can release endorphins, like dopamine, while developing a new and healthy habit to aid in increased feelings of well-being.
- Stay hydrated. Drinking adequate water and other electrolyte-rich fluids is essential for optimal thyroid and metabolic health, especially when following a low-carb, high-fat diet and releasing fluid and nutrients at a higher rate while in metabolic ketosis.
- Eat protein. Adding healthy fat to your keto meal plan is crucial, of course. Still, you also want to make lean premium proteins a significant portion of your meal plan to support cell recovery and keep you feeling satiated with a steady metabolic rate throughout the day.
- Don't skimp on calories. It's important to eat your meals as
  planned and avoid skipping or skimping on eating throughout the
  day. Even if you're intermittent fasting or eating only one large
  meal a day, be sure to nourish your body well to promote optimal
  performance.

• **Get your rest.** According to the National Sleep Foundation, lack of restful sleep can lower the metabolic rate over time. Most adults should get about seven to nine hours of sleep a night.

#### The Impact of Food on Metabolism

Eating food produces what's known as a thermic effect, increasing the metabolism whenever we eat, digest, and store food. And consuming protein further increases metabolic activity as it requires significantly more energy to process and absorb than carbohydrates or fats.

The following is the energy required to digest macronutrients:

- Protein: 10–30% of the energy content of the ingested protein
- Carbs: 5–10% of the ingested carbohydrates
- Fat: 0–3% of the ingested fat



Food compounds found in foods like chili peppers, coffee, or antioxidant-rich green tea can provide a metabolic bump when consumed in the context of a well-balanced keto diet.

Here are some other foods to consume to support metabolic health:

- Caffeine: Beverages like tea, coffee, or other caffeinated beverages can increase energy output and provide a mild metabolic boost.
- Green Tea Catechin Extract: The compound catechin found abundantly in green tea is linked with increased caloric expenditure and can aid in torching fat, especially when paired with regular resistance and other strength training.
- Capsaicin found in chili peppers can boost metabolic rate, mainly when consumed in a concentrated supplement, as gleaning enough of the compound from food sources alone is challenging.
- Plus, research shows that diets packed with **protein**, even in moderate amounts, and eating whole organic foods likely increases energy output, unlike diets low in protein and high in ultra-processed foods.

However, it's most crucial to focus on formulating a high-quality and well-rounded ketogenic meal plan that's rich in antioxidants and premium ingredients rather than obsessing over one specific food or drink as the sole panacea for health.

Comprise your diet of grass-fed and finished meats, wild-caught fish and seafood, fibrous veggies, nuts, and seeds, along with healthy fats, to prime metabolism and increase the potential for weight loss and alleviating symptoms related to thyroid or metabolic dysfunction.



# **Ketosis, Metabolism, and Accelerated Weight Loss**

Achieving a fat-adapted state, where our bodies rely primarily on fat and ketones for fuel, boosting our metabolism, and supercharging weight loss are all reasons that attract followers to the ketogenic diet.

Eliminating sugars, simple carbs, and increasing hydration and activity are all simple yet practical approaches to managing weight and mitigating adverse effects of unregulated blood sugar levels, overweight, and obesity, among other metabolic issues fueled by eating a Standard American Diet.

Our bodies burn fat rapidly and efficiently once we shift away from relying on glucose for most of our fuel. Plus, the stabilizing of blood sugar and natural appetite suppression experienced by most on a keto diet helps avoid the "yo-yo dieting effect" that's devastating and detrimental to the metabolism and thyroid.



#### **Thyroid-Healthy Foods that Burn Fat**

Eating a diet rich in healthy fats is great for so many reasons, including the robust catalog of foods with few carbs but loads of thyroid-healthy options to enjoy.

Add some of the following food finds to your menu plan to support accelerated weight loss while facilitating optimal thyroid function:

- Roasted seaweed: Mineral-rich sea vegetables like kelp, nori, and wakame, are naturally abundant in iodine—an essential trace mineral required for normal thyroid function.
- **Salted nuts:** Fantastic low-carb nuts like macadamia and Brazil nuts are rich in selenium which aids in thyroid health. Plus, nuts are easy to pack ahead and eat as a filling keto snack.

- **Baked fish:** Several fish options are ideal when following a low-carb diet. And options like cod, salmon, and sea bass offer a potent portion of selenium and healthy omega-3 fatty acids, which support thyroid and metabolic function.
- Dairy: Table salt offers iodine which helps aid in thyroid function, but eating sugar-free yogurt, kefir, or other organic dairy foods is also an excellent way to increase iodine intake and avoid thyroid conditions like enlarged glands or goiter due to mineral deficiencies.
- **Fresh eggs:** Select the freshest, organic eggs you can find and enjoy them in a wide array of keto-friendly meals for a hearty dose of selenium and iodine—two thyroid-boosting elements sure to support optimal system function.



# Fight Fatigue with Food

Our post-Thanksgiving meal sluggishness speaks volumes to the potential effect of food on our energy levels. What we eat matters and becomes particularly important when seeking to avoid fatigue. It is wise to eliminate foods like sugar altogether because of keto, of course.

But there are some less apparent foods to forgo to maintain high energy levels throughout the day while limiting carbs.

Focus on eating the following foods to keep energy levels high while curbing carbs and sugars in your meal plan:

#### **Eating Keto for Energy and Vitality**

- **Unprocessed Foods:** Eating organic whole foods is ideal over consuming highly-processed fare, even if it's low in carbs.
- **Fresh, seasonal fruits and vegetables:** Grab what's in season at your local farmer's market or via your chosen CSA to enjoy the freshest produce possible.
- Non-caffeinated Beverages (plain or seltzer waters, bone broth, etc.): Enjoying non-caffeinated beverages benefits two-fold: you get increased hydration and there's no need to worry about overdoing it with caffeine and experiencing an unwanted drastic spike and fall in energy.
- **Eat lean proteins:** Ensure intake of lean and fatty meats to boost metabolic function and encourage speedy muscle recovery.
- Enjoy lots of nuts and seeds in your diet for added protein and loads of thyroid-boosting selenium.





- **Coconut Water:** Sip on coconut water for added vital electrolytes often diminished when eating a low-carb, high-fat diet. This mineral-rich beverage is amazing as a source of hydration and to replenish nutrients after intense activity.
- **Bone Broth:** Drinking bone broth regularly is an excellent way to replenish hydration, along with electrolytes and other essential nutrients on its own or as the flavorful base for soups and stews.
- Vitamins and Supplements: Consider adding vitamins and supplements to your protocol to support thyroid health, especially if you know you're opting to eat more of a lazy-style keto diet containing more packaged and processed low-carb convenience foods.
- **Chia Seeds:** Add these nutrient-dense seeds to everything from overnight keto 'oats' to keto-friendly energy bars that contain nutrients like calcium, iron, zinc, phosphorus and B vitamins, to aid in healthy metabolic function.

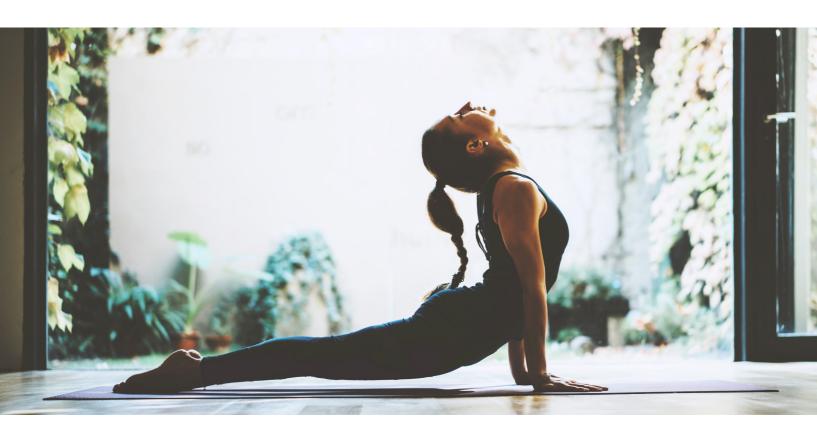
- **Hard-boiled Eggs:** Prepare these protein-packed pods during meal prep for a metabolism regulating meal option, always within reach, even on the go.
- **Protein Powder (Keto Shake):** Blending a creamy Keto Shake, and getting creative with fruity add-ins, is the perfect approach to supporting thyroid and metabolic health while keeping mealtime super simple.
- **Dark Leafy Greens:** While large amounts of cruciferous veggies can impair thyroid function in some with compromised systems, eating loads of dark leafy greens is generally an excellent choice on a keto diet for countless reasons.

Observe how you feel after eating such foods to determine their effect on your body and whether it's worth including them in your diet.

#### **Avoid Energy-Busters**

Some elements do little more than cause blood sugar spikes and create instability in mood and energy; avoid these items or find alternatives and coping mechanisms to manage:

- Sugar
- Artificial Sweeteners (e.g., Splenda, Equal, Sweet N Low, etc.)
- Trans Fats (e.g., margarine, and partially or fully-hydrogenated fats)
- Highly-processed Foods
- Alcohol



## Holistic Approach to Rejuvenation

Tips to Optimize Lifestyle Hygiene

Following a structured routine that serves your goals throughout the day is a fantastic way to crush your to-do lists and condition yourself to meet specific targets throughout the day.

Training the body to equate wake and sleep cycles with predictable activities can help deepen rest and invigorate waking hours in beneficial ways.

Consider implementing some or all of the following elements to your daily routine to enhance and fine-tune your lifestyle hygiene regimen and encourage improved thyroid function:

#### Morning

- Wake at the same time each morning
- Take thyroid meds, if prescribed by your physician
- Eat a nutrient-dense breakfast to stoke your stores with clean energy for fuel
- Consume caffeine wisely

#### **Afternoon**

- Break for healthy midday fuel—maybe an antioxidant rich smoothie and salad or a seared cut of salmon with roasted veggies.
- Recharge in the afternoon with a dose of MCT oil, or a brief rest from tasks to access your second wind of energy for the day.
- Get moving! Elevating your heart rate and getting moving boost metabolic activity and supports healthy weight loss.
- Reserve some time for mindfulness. Meditation can aid in managing stress and help with achieving more restful sleep.
- Stay hydrated. Ketosis causes the body to release fluids, vitamins, and minerals at increased levels. Remain mindful about replenishing water and electrolyte-rich fluids throughout the day to keep levels topped off.

#### **Evening**

- Flip conventional wisdom on its head and eat your smaller meal in the evening, to put less stress on your digestive system as you prepare for bedtime.
- Get to sleep at the same time each day to promote consistently quality sleep.
- Limit alcohol in the evening to avoid sleep disruptions.
- Relax and limit electronics in the evenings. Ditch the screens and devices in the bedroom, and dim the lights at least an hour before bedtime.

## The Takeaway

From mindfulness and meditation to getting ample sleep and eating a diet rich in thyroid-boosting foods: it is wise to commit to actions that support our ability to live the best possible quality of life.

With thyroid health at the center of all our system's proper functioning, it is easy to see why mastering its care is an effort worth committing to for our own sake.

Consult with your physician to determine your baseline of hormone levels and get a personalized understanding of what your numbers mean for your health.

And consider the use of a hybrid approach that incorporates medical intervention, if needed, but relies mainly on making intentional lifestyle choices that rejuvenate your thyroid function, boost your metabolism, banishes fatigue, and helps you feel your very best naturally.

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