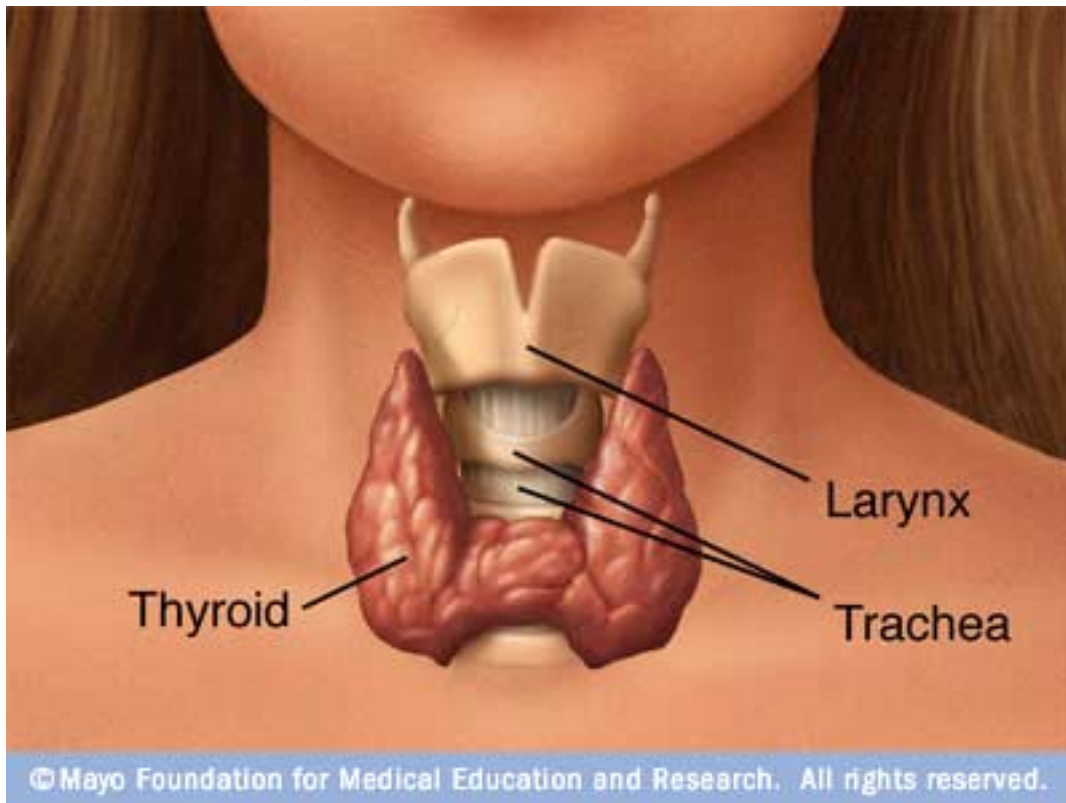


## THYROID DISORDERS

**Thyroid conditions are complicated and involved, requiring specialist and comprehensive management by endocrinologists, doctors and trichologists. Here is a general overview to give you a simple understanding of the system and why it may be part of the reason you are noticing hair changes.**



**It must be stressed strongly that your doctor/endocrinologist, trichologist listens and hears all the symptoms that you share and treats you and your verbal symptoms as well as physical ones, and not just the rest results that are reported back.**

**Arming ourselves with information is always the first part of the equation in enabling comprehensive and effective management of our health. It allows us to ask the right questions, and work in partnership with our specialists.**

**Hair is considered a non-essential tissue by the body, therefore the brain will not direct energy to it when there are requirements in essential tissue elsewhere. As hair needs a lot of energy to metabolize effectively, a redirection of this energy as a result of a thyroid challenge can leave hair at a sub-optimal level – potentially resulting in hair loss/thinning, brittleness and dull, lifeless-looking hair. Hair changes can present**

**dramatically or subtly, depending on many variables. Those changes can take place slowly over a lengthy period of time - nonetheless, they are all frequently upsetting. The pattern of loss associated with thyroid changes and dysfunction, will predominantly show in a diffuse pattern of hair loss. However, hair loss that occurs as a result of thyroid imbalance has the potential to improve once your system recovers, and is effectively managed through treatment or medication.**

**You will require follow ups and in many cases it is vital to share all changes with your healthcare provider so they can assess whether your medication needs to be adjusted. Understanding what is happening and treating the system wholly will always create a situation where hair production is at each individual's optimal.**

**Your hair growth cycle is influenced by genetics, nutrition and your overall health and wellness.**

## **HYPOTHYROID/HYPERTHYROID**

**The thyroid is part of the endocrine system and is frequently referred to as a butterfly-shaped gland. Situated in the lower neck just below the Adam's apple and wrapped around the windpipe, it is composed of two lobes surrounding the isthmus (the bridge between both lobes). Each lobe performs the same function, and like the kidneys can take over the workload should anything go wrong with the other lobe. Though small in size (weighing approximately 1oz) it plays a vital role in body function as it affects every cell in the body.**

**The function of the thyroid is to produce hormones which are then released into your bloodstream. Thyroid hormones regulate energy levels and reproduction of all cells. It helps the body stay warm and keeps the heart, brain, muscles and all organs fully operational so that we can feel well and remain in good health.**

## **THYROXINE (T4) AND TRIIODOTHYRONINE (T3)**

**Your brain (more specifically, the hypothalamus) signals your pituitary gland (a pea-size master endocrine gland below the base of the brain) to produce the hormone TSH. This in turn tells the thyroid gland to make two hormones, thyroxine ( T4 ) and triiodothyronine (T3), which are collectively called 'thyroid hormone'. T3 and T4 ultimately control metabolism and how**

much energy is required by different systems in the body. The pituitary gland reads the amount of thyroid hormones in the bloodstream and increases or decreases production of T3 and T4, based on the levels detected.

As the thyroid affects every cell in your body, there are numerous symptoms that could present to indicate imbalance.

## Hypothyroidism      Hyperthyroidism

<u>Symptoms:</u>	<u>Signs:</u>	<u>Symptoms:</u>	<u>Signs:</u>
Extreme Tiredness/Lethargy/ Lack of Stamina/Motivation	Sparse Eyebrows Especially outer ends	Protusion of one or both eyeballs (exophthalmos)	Protruding Eyes (exophthalmos)
Memory Loss/'Brain Fog'	Swelling of the Face Especially around Eyes (Oedema)	Breathlessness	Hair Loss
Depression/ Mood Swings	Changes at the back of the Eye (at Fundus Oculi)	Nervousness	Staring Gaze
Hearing Loss	Wasting of Tongue	Difficulty Sleeping/ Insomnia	Nausea & Vomiting
Weight Gain	Listless, dull to look Eyes		Warm Moist Skin
	Hoarseness		Goitre
	Rapid Heart Rate with weak force of contraction		Fast Heart Rate
3pm crash	Slow Thinking	Fatigue	Trembling Hands
Broken Sleep	Slow Pulse Rate	Itching -overall	
Brittle/ Ridged Nails	Non pitting oedema of ankles	Heartbeat Sensations	Skin Blushing/ Flushing
Joint/ Muscle Pain	Cold/dry/sore/scaley skin/brittle nails	Palpitations	Blood Pressure- high
Hair Loss	Low basal activity level temperature	Weakness	Pulse- Pounding
Constipation	Dry/course/brittle hair or hair loss	Diarrhoea	Weight Loss
Prmenstrual Tension	Unexplained Weight Gain	Increased Bowel Movements	Muscle Weakness
Intolerance to Cold/Heat/ Sweating/Low Body Temperature	Pounding Heart Beat	Heat Intolerance	Breast Development in Men
Tingling & Numbness in Extremities	Nervousness	Light or Absent Menstruel Periods	
	Sluggish Movement		

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### HYPOTHYROIDISM (UNDERACTIVE THYROID)

Hypothyroidism, or an underactive thyroid, is considered one of the most common health problems. Simply put, it means that there is not enough thyroid hormone (T3 and/or T4) in the body. Hypothyroidism can present itself in varying stages from mild and moderate to severe.

**The low levels of thyroid hormones reduce the activity and the ability of the body to regenerate cells. Hashimoto's Disease is responsible for up to 80% of cases according to the American Association of Clinical Endocrinologists. Women are five times more likely to be diagnosed with hypothyroidism, and the odds increase with age.**

**Hashimoto's Disease is caused by abnormal antibodies, whereby white blood cells attack your thyroid cells. This is often a very slow progression, and frequently goes undetected for years. Many of the symptoms can be attributed to ageing, and as result the condition goes undetected. This is why information and self-diagnosis can lead to the detection of changes that can reduce optimal health, and possibly cause other complications with your health and wellbeing.**

**Listed below are some of the many symptoms of an underactive thyroid:**

**Depression and/or anxiety**

**Unexplained weight gain**

**Enlarged thyroid gland (frequently referred to as 'Goiter')**

**General fatigue, even when well rested**

**Brittle nails and/or nail ridging**

**Hair changes – ie weaker or lifeless hair**

**Sensitivity to cold**

**Raised cholesterol – from the perspective of a Trichologist, the concern is that while this is never ideal for normal body metabolism, the possibility of anaemia or iron deficiency (due to heavy periods) could also contribute to hair loss and density**

**Muscle cramping**

**Cardiovascular changes**

**Memory changes and difficulty concentrating**

**Dry, rough and itchy skin**

**The hair frequently becomes dry and brittle with obvious signs of thinning - these symptoms are what brings many women in particular to seek the help of a Trichologist. Our thorough consultation could then yield other bodily changes**

## **HYPERTHYROIDISM (OVERACTIVE THYROID)**

**Hyperthyroidism, or overactive thyroid, is as a result of the overproduction of the thyroid hormones T3 and T4.**

**A very large percentage of all hyperthyroidism is caused by Graves' Disease - an autoimmune condition which occurs when your immune system considers the thyroid a danger and starts to attack it. Thyroid-stimulating immunoglobulin antibodies are produced with no controlling factors, and unlike TSH which responds to the levels of T3 and T4 in the blood, TSI causes and signals the thyroid to produce too much T3 and T4 hormone.**

**Listed below are some of the many symptoms that could signal an overactive thyroid:**

**Menstrual problems**

**Unexplained weight loss**

**Hand tremors**

**Increase in perspiration**

**Difficulty concentrating**

**Frequent bowel movements/typically loose**

**Thinning hair and excess loss/shedding**

**Heart palpitations**

**Dry eyes**

**Thyroid growths called Goiters**

**Enlarged protruding eyes**

**Sensitivity to light**

**Insomnia**



**General and conventional wisdom suggests that if you can say yes to three or more of the symptoms on either list it is time to speak with your doctor and discuss the need for a thorough consultation.**

**With regard to diet, it is recommend avoiding where possible artificial chemicals and toxins found in processed foods, especially long term accumulation and ingestion that can impede thyroid function – a classic example of this is mercury. Because mercury is chemically similar to iodine, the thyroid will store it and it can potentially trigger a thyroid autoimmune disease such as Graves' or Hashimotos'.**

**As is the case with all potential health issues, a proper diagnosis, establishing a treatment plan and follow ups are particularly important with any thyroid condition.**