



What causes hypothyroidism?

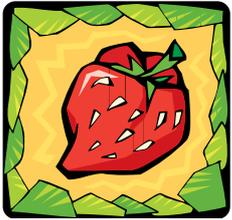
A number of things. Iodine deficiency, autoimmune disease such as Hashimoto's Thyroiditis, surgery, radiation and drugs, heavy metals and environmental contaminants such as xeno-oestrogens (things that aren't oestrogen which bind onto those receptors and cause problems), stress, hyperinsulinaemia, dietary mineral deficiencies and more.

Is there more than one type?

Yes. Central hypothyroidism is due to trauma, or loss of pituitary tissue, congenital abnormalities, strokes, infections, haemochromatosis and many other causes. Primary hypothyroidism can be due to chronic autoimmune thyroiditis, radiation, infectious diseases and more. These malfunctions cause defects in thyroid hormone synthesis. There's also peripheral hypothyroidism which comes from thyroid hormone resistance or massive infantile haemangioma.

Who gets it?

Caucasians get it mostly, with women more than men, and more people over 60. However there are lots of misdiagnosed or undiagnosed subclinical cases of hypothyroidism in the community.



What are the symptoms?

Fatigue, especially in the evenings, dry skin, low libido, depression, cold extremities, brittle nails, memory lapse, general aches and pains, headaches, cold intolerance, weight gain (or sometimes loss), puffy eyes, constipation, poor concentration, fibromyalgia, infertility, anxiety syndromes, low body temperature, low stamina, dysmenorrhoea, heart palpitations, foggy brain function and more. In severe cases, it can cause symptoms like Alzheimers Disease. This spread of symptoms is why it is so often misdiagnosed.

I've heard of TSH. Are there more thyroid hormones?

Yes. TSH is Thyroid Stimulating Hormone. Then there's TRH, a precursor to TSH which is Thyrotrophin Releasing Hormone. T4 is a less active form of thyroxin that needs to be converted to the active form T3. Reverse T3 is a malfunctioning form of T3, and there's also a protein called Thyroid Binding Globulin which is part of the family.



Why do I need a good working thyroid anyway?

Your thyroid governs protein, fat and carbohydrate metabolism, vitamin utilisation, energy production, digestion, muscle and nerve activity, blood flow and oxygen utilisation and sexual and reproductive health. That's quite a lot of essential functions.

Why is there a higher incidence in women?

Because oestrogen partially blocks the efficiency of T4, women have to make more of it. There are a lot of environmental xeno-oestrogens in plastics and everyday chemicals including cleaners and toiletries, so women usually have more exposure than most men.

What sort of tests are there?

Usually it is tested in a blood test, but you need to test most of the hormones, not just TSH which is the most common reading. To diagnose it properly, you need to know levels of TSH, T4 and T3. High or low levels of each of those hormones will show what type of hypothyroidism and its severity. Reverse T3 should also be tested, but usually isn't. There are also other tests, such as an iodine patch test.



Do caffeine, alcohol or smoking do anything to the thyroid?

Certainly! Caffeine interferes with T3 and exhausts the adrenal glands. Nicotine depresses all thyroid hormones and produces adrenal and thyroid fatigue. These hormonal imbalances then make it harder for smokers to quit. For some people alcohol and opiates can increase T3 levels which makes people feel better, promoting addiction.



You mentioned mineral deficiencies in the causes. Which minerals are important?

Iodine is probably the main one, but also selenium, zinc and copper.

What about heavy metals and chemicals?

Mercury from dental amalgams and other sources accumulates in thyroid tissue and challenges the immune system. If someone is deficient in selenium, this makes mercury poisoning worse. Studies have found that mercury can be high in thyroid nodules dissected after surgery. Chlorine and fluoride added to water block iodine takeup at the receptor sites and so interfere with hormone balance. Drink filtered water only.

You also mentioned stress.

Stress promotes cortisol excretion, and this adversely effects the thyroid and exhausts the adrenals. Elevated cortisol reduces free T3, decreases enzymes associated with hormone function, and increases the risk of autoimmune disease.

And hyperinsulinaemia?

This is too much insulin in the blood which increases levels of Thyroid Binding Globulin from the liver, binding the T4 and T3 that you need to create energy and metabolise food. This condition is often undetected.



I've heard that thyroid function can impact on heart health.

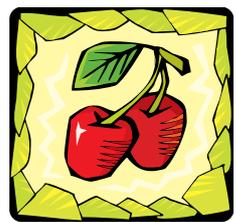
Yes, it causes high cholesterol. Usually doctors prescribe statins, but often without testing thyroid function. When you have low T3, the liver doesn't function properly, and produces excess bad cholesterol. You can also find yellowing skin due to the liver being unable to store vitamin A properly.

Why does thyroid imbalance cause memory problems and a foggy head?

Thyroid hormones are neurotransmitters, which we need for proper brain function. T3 also influences levels of serotonin, which is the feel-good neurotransmitter. Low levels cause depression, and many depression medications then lower T3 levels, worsening it.

What can I do in my diet to help my hypothyroidism?

Diet can help but it's likely you'll need much higher levels of herbs and nutrients than you can get in your diet. But you should try. Shiitake and Ganoderma mushrooms, turmeric and ginger added to meals are all good thyroid hormone balancers which have other good properties too. Good levels of protein help, as you need tyrosine which is an amino acid. Vitamin C-rich foods help protect against cadmium toxicity and of course selenium and zinc are necessary. Vitamins D & E are very important to thyroid health.



Anything else?

Notice too that the thyroid is located at the point of the 5th chakra, which is the throat, and is associated with communication. If you are someone who cannot speak your truth, or are unable to /not allowed to speak freely, then you may have thyroid problems.

Food sources which have good levels of:

Tyrosine: meat, dairy, legumes, beans, nuts, seeds, whole grains, bananas and avocados

Iodine: fish, eggs, kelp and seaweed, some cheeses

Vitamin C: mostly fruits and vegetables, including broccoli, citrus, mango, pawpaw, kiwi fruit, capsicum

Vitamin D: sunshine of course, but also eggs and fish, plus vitamin d fortified foods

Vitamin E: cold-pressed nut oils, wheatgerm, egg yolk, avocado, nuts and seeds

Selenium: nuts, fish, wholegrains, meat, barley

Zinc: green leafy veg., oysters, shellfish, wheatgerm, pine and pecan nuts

When eating fish, always buy good quality, as many oily fish for consumption can contain mercury and other heavy metals which only makes hypothyroidism worse. Be especially careful if pregnant.

