



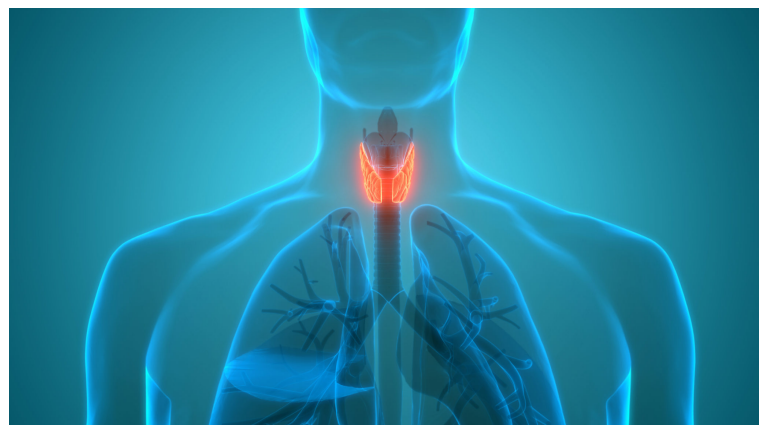
ISNS Case Study

Hypothyroidism

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Hypothyroidism is a common condition where the thyroid does not create and release enough thyroid hormone into the bloodstream. This makes your metabolism slow down. Also called underactive thyroid, hypothyroidism can make you feel tired, gain weight, and be unable to tolerate cold temperatures. The main treatment for hypothyroidism is hormone replacement therapy. Hypothyroidism may not cause noticeable symptoms in its early stages. Over time, hypothyroidism that is not treated can lead to other health problems, such as high cholesterol and heart problems. Blood tests are used to diagnose hypothyroidism.

The thyroid is a small, butterfly-shaped gland located at the front of your neck under your skin. It is part of the endocrine system and controls many of the body's important functions by producing and releasing (secreting) certain hormones. The thyroid's main job is to control the speed of your metabolism (metabolic rate), which is the process of



how your body transforms the food you consume into energy. All of the cells in your body need energy to function. When the thyroid is not working properly, it can impact your entire body. Your endocrine system is a network of glands that create and secrete (release) hormones.

Hormones are chemicals that coordinate different functions in your body by carrying messages through your blood to your organs, skin, muscles, and other tissues. These signals tell your body what to do and when to do it. As an endocrine gland, your thyroid makes and secretes hormones. The thyroid gland produces and releases the following hormones thyroxine (T4), triiodothyronine (T3), reverse triiodothyronine (RT3), and calcitonin. Thyroxine (T4) is the primary hormone the thyroid makes and releases. Although the thyroid makes most of this hormone, it does not have much of an effect on the metabolism. Once the thyroid releases T4 into the bloodstream, it can convert to T3 through a process called diiodination. Triiodothyronine (T3) is produced in lesser amounts than T4, but it has a much greater effect on your metabolism than T4. Reverse triiodothyronine (RT3) is made in very small amounts, which reverse the effects of T3. Calcitonin is the hormone that regulates the amount of calcium in the blood. In order to make thyroid hormones, your thyroid gland needs iodine, an element found in food (most commonly, iodized table salt) and water. The thyroid gland traps iodine and transforms it into thyroid hormones. The thyroid hormones affect how the body uses energy, heart rate, breathing, digestion, body temperature, brain development, mental activity, fertility, skin and bone maintenance.

The symptoms of hypothyroidism depend on the severity of the condition. Problems tend to develop slowly, often over several years. At first, you may barely notice the symptoms of hypothyroidism, such as fatigue and weight gain or you may think they are just part of getting older. But as your metabolism continues to slow, you may develop more-obvious problems. Hypothyroidism symptoms may include tiredness, sensitivity to cold, constipation, dry skin, puffy face, coarse hair or skin, weight gain, muscle weakness, muscle aches, tenderness, and stiffness, depression, menstrual cycles that are heavier than usual and memory problems. Hypothyroidism can have a primary cause or a secondary cause. A primary cause is a condition that directly impacts the thyroid and causes it to create low levels of thyroid hormones. A secondary cause is something that causes the pituitary gland to fail, which means it can't send thyroid stimulating hormone (TSH) to the thyroid to balance out the thyroid hormones. Primary causes of hypothyroidism are much more common. The most common of these primary causes is an autoimmune condition called Hashimoto's disease. Also called Hashimoto's thyroiditis or chronic lymphocytic thyroiditis, this condition is hereditary. In Hashimoto's disease, the body's

immune system attacks and damages the thyroid. This prevents the thyroid from making and releasing enough thyroid hormone. Other primary causes of hypothyroidism can include thyroiditis, treatment of hyperthyroidism, iodine deficiency, and hereditary conditions.

The symptoms of hypothyroidism can be different from person to person. They can often look like symptoms of other health problems. Because of that, a diagnosis of hypothyroidism does not rely on symptoms alone. It is usually based on the result of blood tests. The first blood test is typically done to diagnose hypothyroidism and measures the level of thyroid-stimulating hormone (TSH) in the blood. If it's high, the test is done again, along with a blood test for thyroid hormone T4 is low. If the results show that TSH is high and T4 is low, then the diagnosis is hypothyroidism. In some cases, the thyroid hormone T3 may be measured as well. If the second test shows high TSH but T4 and T3 are in standard range, then the diagnosis is a condition called subclinical hypothyroidism. It usually does not cause noticeable symptoms.

Conventional treatment for hypothyroidism usually includes taking the thyroid hormone medicine levothyroxine (Levo-T, Synthroid, and others) every day. This medicine is taken by mouth. It returns hormone levels to a normal level, eliminating the symptoms of hypothyroidism. You will likely start to feel better one or two weeks after you start treatment. Treatment with levothyroxine will be lifelong. Because the dosage you need may change, your health care provider may check your TSH level each year.

Case Study

Patient: Female

Age: 36-year-old

History: Her mother was diagnosed with hypothyroidism when she was in her 50's.

Symptoms: fatigue, weight gain, constipation, thinning hair, hair loss, cold intolerance, depression and problems in the menstrual cycles.

Lab tests:

TSH: 7.38 microIU/ml (normal range: (0.35-4.94)

T4: 6.08 mg/dl (normal range: 9.01-19.05)

T3: 2.05 mg/ml (normal range: 2.43-6.01)

Anti TPO: 283,5 U/ml (normal range: <5.61)

Medications: she started on levothyroxine medication.
L-thyroxin:100 mikrogram/day

Treatment/Method: She received proprietary blends.

Proprietary Blend I: 2x3 drops, morning and evening, for 3 days, then every 3 days then increased by 1-1 drops every 3 days to 2x10

Proprietary Blend II: 1 in the morning for 7 days, then 2, 1 in the morning and 1 in the afternoon

Proprietary Blend III: 1/2 sachet in the morning for 7 days then 1 sachet in the morning for 7 days then 1 sachet in the morning and 1 sachet in the evening

Proprietary Blend IV: ½ teaspoon in the morning.

Proprietary Blend V: 1 teaspoon in the in the evening for 7 days, then 1.5 teaspoon in the evening

Proprietary Blend VI: 1 in the morning for 7 days then 1 in the morning and 1 in the evening

Additional treatment: Exercises to achieve a positive mental and emotional state (e.g: yoga, meditation, breathing exercises, stress management, regular exercise and adequate sleep. A gluten free and selenium rich diet were also proposed (e.g: fish and other seafood)

LEGEND:

Proprietary blend I: silica, vitamin c, and trace minerals.

Proprietary blend II: N-acetyl L-tyrosine, anhydrous caffeine, L-theanine, velvet bean seed, pine bark, curcumin, and vitamin d.

Proprietary blend III: black seed oil, resveratrol, turmeric, raspberry ketone, apple cider vinegar, aloe Vera, and d-ribose

Proprietary blend IV: Vitamin C, Zinc sulfate, and Vitamin D3.

Proprietary blend V: Inulin, Green Banana Flour, Apple Fiber, Bacillus Coagulans, Spirulina, Wheat Grass, Barley Grass, Alfalfa Leaf, Flaxseed, Psyllium Husk Powder, Chlorella, Broccoli, Kale, Spinach, Green Cabbage, Parsley, Aloe Vera, Cayenne Pepper, Blueberry Powder, Pomegranate Seed Powder, and MCT Coconut Oil Powder

Proprietary blend VI: B-Nicotinamide Adenine Dinucleotide (NAD+), magnesium, trace minerals, quercetin, vitamin D, vitamin C, and vitamin K2

Results: After 1 month of treatment she noticed an improvement in her energy levels and was able to lose some of the weight she had gained. Her constipation also improved, and she no longer felt cold all the time. After 3 months her symptoms gradually continued to improve. Her energy levels continued to increase, she experienced less hair loss and her mood improved. The functioning of the digestive system and menstrual cycles have returned to normal.

Control Lab tests:

TSH: 4.91 (7.38) mickroIU/ml (normal range: 0.35 -4.94)

T4: 11.21 (6.08) mg/dl (normal range: 9.01-19.05)

T3: 3.81 (2.05) pg/ml (normal range: 2.43-6.01)

Anti TPO: 76.8 (283.5) U/ml (normal range: <5.61)

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