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Hypothyroidism

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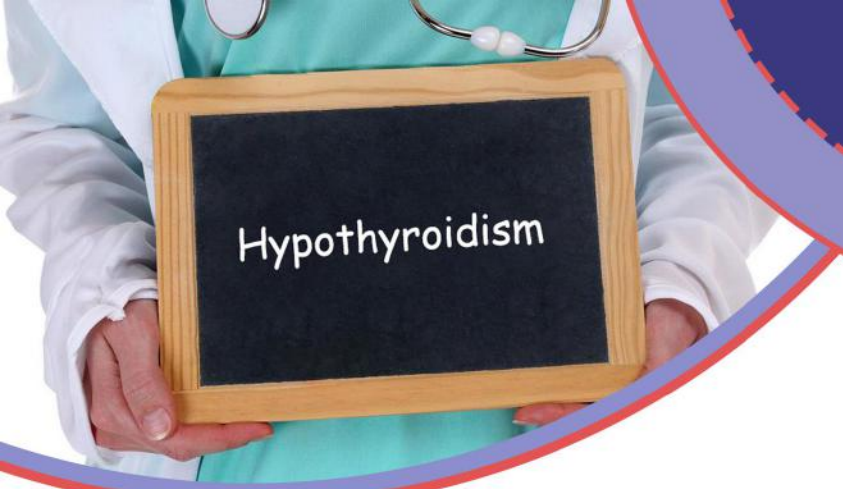
- **Menopause:** The link between thyroid hormone and the gonadal axis has been well established, however, there are limited studies on thyroid function and menopause. Recent assessments do not appear to directly affect thyroid function in the pathogenesis of menopausal symptoms. Menopause, however, may affect the clinical signs of an autoimmune thyroid, such as Hashimoto's thyroiditis.
- **Pregnancy:** Thyroid dysfunction is associated with complications of pregnancy and childbirth, such as preterm labor, high blood pressure during pregnancy, and sudden placental abruption. In the United States, one in 50 women develops hypothyroidism during pregnancy; especially in areas with severe iodine deficiency. Maternal and neonatal hypothyroidism leads to cretinism (a disease that occurs due to hypothyroidism from birth). In areas less than 100 mcg/l, supplementation should be recommended during pregnancy and lactation.
- **Environmental factors:** Major environmental stimuli in thyroid autoimmune disease include excessive iodine intake, medications, inflammation, smoking, and stress.

Medical nutrition therapy in hypothyroidism

- Numerous nutrients, especially iodine and selenium, are involved in thyroid health. Deficiencies in micronutrients such as iron, selenium, vitamin A, and possibly zinc interfere with the nutritional status of iodine and thyroid function.

- **Fasting or restricted diet:** carbohydrate and calorie restriction may reduce thyroid hormone activity. There is a big difference between people, genetics, gender, obesity, and the macronutrient content of low-calorie diets. Nutritional status and energy expenditure in the secretion of thyroid hormones affect thyroid function. The liver pathway plays a key role in the body's metabolic control. Although calorie restriction for more than 3 weeks brings T3 and T4 back to normal, it is not clear that calorie restriction ketone production plays a role in T3 production and 5-deiodinase activity. In a low-calorie diet, the removal of T3 is reduced by 5-deiodinase.
- **Iron:** in the past, it was thought that low thyroid function might lead to anemia. Recent studies have shown that hypothyroidism is secondary to iron deficiency or anemia.



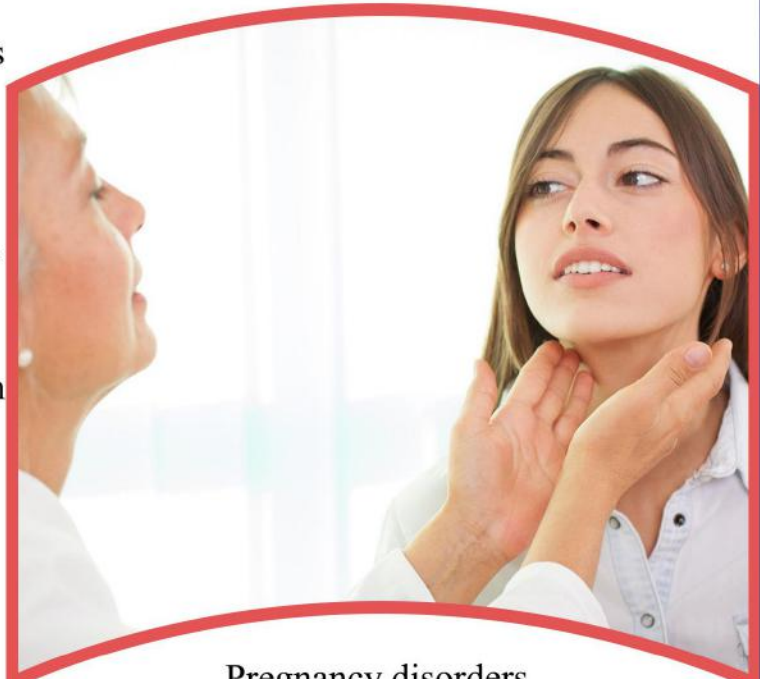
Hypothyroidism

Among the known factors for reducing thyroid function are autoimmune disorders that account for more than 50% of the causes of hypothyroidism and are called Hashimoto's thyroiditis, in which the immune system destroys thyroid tissue. Common symptoms of Hashimoto's thyroiditis include decreased energy, cold hands and feet, fatigue, hypercholesterolemia, muscle aches, depression, and memory loss. Thyroid hormone testing should be done before drug treatment. Women suffer from hypothyroidism 5-8 times more often than men.

Common symptoms of hypothyroidism

Fatigue , Forgetting , Depression , Irregular menstruation ,

Periodic dry hair , Periodic dryness of skin , Mood swings , Weight gain , Rough and taken sound , Constipation , Loss-weight , Heart intolerance , Appetite changes , Increased bowel movements , Vision changes , Muscle fatigue and weakness , Menstrual disorders ,



Pregnancy disorders , Mental disorders , Sleep disorders , Shaking hands , Enlarged thyroid gland

The causes of hypothyroidism

Aging: Maintaining the function of the thyroid hormone is very important in the aging process. The onset of hypothyroidism increases with age. By age 60, 9 to 17% of men and women have an active thyroid. The lack of circulating thyroid antibodies is very important in health.There is an increase in the prevalence of specific tissue and non-tissue autoantibodies in sick elderly. Lack of these antibodies indicates the preservation of heart disease and other chronic age-related diseases.