



# Hypothyroidism and hyperthyroidism The prevalence of hypothyroidism and hyperthyroidism and its impact on the lives of patients with the disease

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### **1 INTRODUCTION**

The thyroid gland performs functions of paramount importance for the functioning of the human body, being responsible for the production of three (3) hormones, thyroxine (T4) and tri-iodothyronine (T3), which regulate metabolism, and calcitonin, which is linked to the regulation of calcium concentration in the body. It is positioned inferiorly to the larynx and extends under the lateral and anterior regions of the trachea. Among the thyroid disorders are hypothyroidism and hyperthyroidism, which impact the metabolism. Both diseases affect a large percentage of the population, where the prevalence varies from region to region, however they have different symptoms.

## **2 OBJECTIVES**

To show the main differences in relation to the functioning and symptoms of the diseases, hyperthyroidism and hypothyroidism, in addition to presenting updated data on the prevalence rate of the disease in relation to the general population.

## **3 METHODOLOGY**

It refers to a bibliographic research with an exploratory approach, having its data searched in scientific articles published from 2018 to 2022, in databases. Data collection occurred through the reading of the selected research, where eight (8) articles were found, but five (5) were chosen that corresponded to the purpose of the work.





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#### **4 RESULTS/DISCUSSION**

Hyperthyroidism causes increased production of hormones (T4) and (T3) and decreased levels of TSH, the most common cause of this pathology being Graves' disease. Its main symptoms are related to adrenergic stimuli, being common: nervousness, excessive sweating, heat intolerance, palpitation, fatigue, eye complaints, goiter, among others, having its clinical and laboratory diagnosis. Hypothyroidism decreases the production of hormones (T3) and (T4), acting in all organs of the human body, interfering with growth, weight, memory, menstrual cycle, fertility, and emotional control. It can be detected in pregnant women during the prenatal period, and the guthrie test can diagnose congenital hypothyroidism in neonates. Besides all this, it can be directly linked to cancers of the pituitary gland, causing alterations such as hyperplasia, because the pituitary gland is linked to several hormones. About 1.6 billion people in the world may have some thyroid disorder, with 1 (one) in every 8 (eight) women developing the problem in their lifetime.

#### **5 CONCLUSION**

Early diagnosis is essential for successful treatment and symptom control. However, the nursing professional plays an extremely important role, and should provide guidance on the need to maintain treatment for a certain period of time, even in the absence of symptoms, and build with the patient means to maintain self-care and independence. Monitoring vital signs, encouraging adherence to treatment, emotional support, and correct orientation are nursing functions to achieve a positive result for the client.



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