

## **Hyperthyroidism and Hypothyroidism**

### **What is the Thyroid?**

Located in the front of the neck, the thyroid gland produces the hormones thyroxine (T4) and triiodothyronine (T3) that regulate the body's metabolic rate by helping to form protein ribonucleic acid (RNA) and increasing oxygen absorption in every cell. In turn, the production of these hormones are controlled by thyroid-stimulating hormone (TSH) that is produced by the pituitary gland.

### **Hyperthyroidism**

Hyperthyroidism is the overproduction of thyroid hormones by an overactive thyroid.

Hypothyroidism is most often the result of Hashimoto's disease, also known as chronic thyroiditis (inflammation of the thyroid gland). In this disease, the immune system fails to recognize that the thyroid gland is part of the body's own tissue and attacks it as if it were a foreign body. The attack by the immune system impairs thyroid function and sometimes destroys the gland. Other causes of hypothyroidism include: