Thyroid Gland

The thyroid gland is a large endocrine gland that is located in the neck. It releases T3 and T4 hormones, which help the body regulate metabolism. T3 and T4 stand for triiodothyronine (T3) and thyroxine, which can sometimes be referred to as tetraiodothyronine (T4). In addition, the thyroid gland has a blood calcium sensor that helps it detect when blood calcium levels are elevated, to which it responds. The thyroid gland releases calcitonin, which builds bone, resulting in an absorption of calcium from the blood stream. Osteoblasts are the cells responsible for bone formation.

PLAY PICMONIC

Characteristics

TSH Stimulates T3 and T4 Release

Tissue-boxes Growing Teapot (3) Tree and Tea-cup (4) Fork

Thyroid-stimulating hormone stimulates the thyroid into producing triiodothyronine (T3) and thyroxine (T4). Both hormones regulate metabolic rate and affect the growth and function rate of other cells and systems in the body.

Metabolism Regulation

Metal-ball

Both T3 and T4 are the primary hormones involved in regulating body metabolism.

Blood Calcium Sensor

Calcium Sensor-camera

The thyroid gland senses blood calcium levels and releases hormones to reduce blood calcium levels when they are elevated.

Calcitonin Release

Cow-throne Released

The thyroid gland also releases calcitonin, which builds bone and absorbs excess calcium from the blood. This is triggered by high blood calcium levels.

Blood Calcium Decreases

Cow pulled from Blood-Road

Blood calcium decreases because it is used to build bone, specifically by osteoblasts.

Bone Building

Cows building Bone-Fence

Calcitonin results in building of bone by uptaking excess calcium in the blood.