

Thyroid

Understanding:

- Thyroxin is secreted by the thyroid gland to regulate the metabolic rate and help control body temperature

Thyroxin is a hormone secreted by the thyroid gland in response to signals initially derived from the hypothalamus

Thyroxin acts on nearly every tissue in the body and is essential to the proper development and differentiation of cells

The primary role of thyroxin is to increase the basal metabolic rate (amount of energy the body uses at rest)

This can be achieved by stimulating carbohydrate and lipid metabolism via the oxidation of glucose and fatty acids

A consequence of increasing metabolic activity is the production of heat – hence thyroxin helps to control body temperature

Thyroxin is released in response to a decrease in body temperature in order to stimulate heat production

Thyroxin is partially composed of iodine and hence a deficiency of iodine in the diet will lead to decreased production of thyroxin

Iodine deficiency will cause the thyroid gland to become enlarged, resulting in a disease known as goiter

