

Describe the function of the thyroid gland.

The thyroid gland regulates the rate and intensity of chemical (metabolic) reactions.

What is a negative feedback mechanism? Describe one such system.

A negative feedback mechanism is where the organ in the body that is, say, stimulating the production of a hormone, receives some of that hormone back to let it know when to stop producing it. An example would be when the pituitary gland tells the thyroid to start working, some of the hormones the thyroid gland produces go back to the pituitary to tell it to stop the stimulation.

What is a goiter? What is exophthalmos? Are they related?

A goiter is an enlargement of the thyroid gland due to a lack of iodine. An exophthalmus is where fat builds up behind a person's eyes and makes them bulge abnormally. They are only related in that they are both symptoms of Graves' Disease (although goiters can occur in other ways), which is where antibodies mimic Thyroid-Stimulating Hormone (TSH) but are not constrained by the negative feedback loop to the pituitary gland.