**From 2014 ATAR Paper: Question 39 (d)**

Calcium plays an important role in the functioning of the nervous system. Explain how the thyroid and parathyroid glands interact with the bones ensure calcium supplies are balanced.

* 1. Thyroid (4 marks)

Thyroid detects raised calcium ion in blood (1)

Thyrocalcitonin released from thyroid gland into blood (1)

Bone lays down more calcium (1)

Calcium ion level in blood lower to homeostatic levels (1)

* 1. Parathyroid (4 marks)

Parathyroids detect lowered calcium ion in blood (1)

Parathyroid hormone released into blood (1)

Calcium in bone broken down and released into blood (1)

Calcium ion level in blood rises to homeostatic levels (1)

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