

14.3 Hormones

Name: _____ Class: _____ Date: _____

Total: 7 marks

Objective

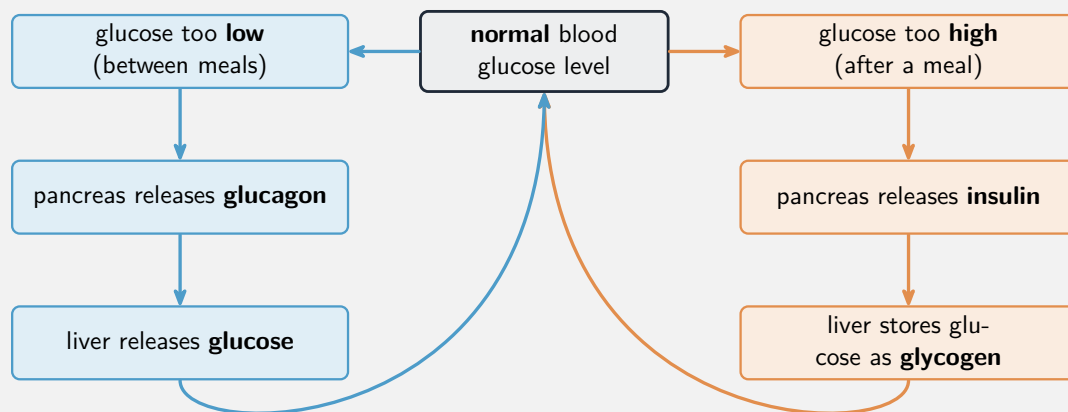
Build the skills to answer exam questions on **hormones** 激素—what they are, the main glands and hormones, **adrenaline** 肾上腺素, and nervous vs hormonal control.

You must be able to:

- define a hormone and name the main glands and their hormones
- describe the effects of adrenaline
- compare nervous and hormonal control

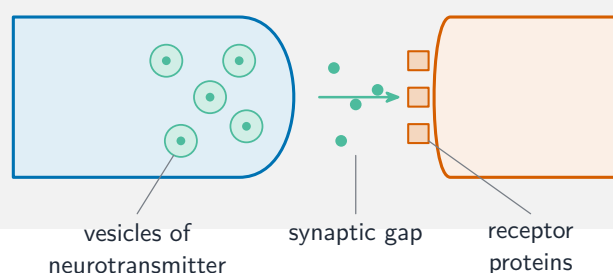
1 Worked examples

■ Hormones



Hormones are chemicals made by glands, carried in the blood, acting on target organs

impulse travels one way only



Gland	Hormone
adrenal	adrenaline
pancreas	insulin (and glucagon)
ovaries / testes	oestrogen / testosterone

2 Practice

2.1 Define a hormone. [2]

2.2 Name the gland that releases adrenaline. [1]

3 Exam-style questions

3.1 Compared with nervous control, hormonal control is: [1]

- **A** faster and shorter-lived
- **B** slower and longer-lasting
- **C** electrical
- **D** instant

3.2 Adrenaline is released in 'fight or flight' situations.

(a) State two effects of adrenaline on the body. [2]

(b) State how a hormone travels to its target organ. [1]

4 Go further

You are now ready for the real exam questions on this subtopic. Open the **14.3 Hormones** past-paper sheet in the Library, or try these in **Practice mode**:

- 0610/22 N25 —Q20 (hormones)

- 0610/23 N25 —Q23 (adrenaline / endocrine)

Solutions

2.1 a chemical made by a gland, carried in the blood, that changes the activity of a target organ.

2.2 the adrenal gland.

3.1 B. Hormonal control is slower but longer-lasting.

3.2 (a) any two of: increases heart rate; increases breathing rate; raises blood glucose; widens the pupils.

(b) in the blood.