

14.3 Hormones

Name: _____ Class: _____ Date: _____ **Total: 19 marks**

KEY WORDS hormone 激素 • glucose 葡萄糖 • adrenaline 肾上腺素 • insulin 胰岛素
• target organs 靶器官

Objective

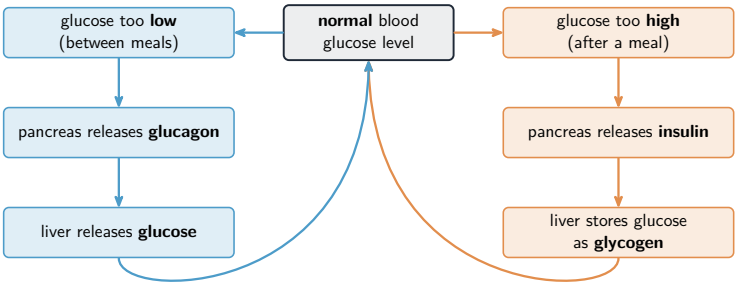
Build the skills to answer exam questions on **hormones** 激素 — what they are, the main glands and hormones, **adrenaline** 肾上腺素, and nervous vs hormonal control.

You must be able to:

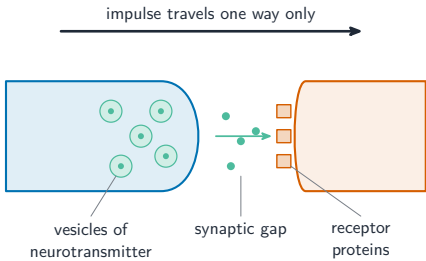
- define a hormone and name the main glands and their hormones
- describe the effects of adrenaline
- compare nervous and hormonal control

1 Worked examples

■ Hormones



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



Hormonal control compared with nervous (synapse) control

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 | B |
| C | D |
- 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]

3.3 A person walking alone at night hears a sudden loud noise. Adrenaline is released.

(a) State what a hormone is, and name the type of gland that makes one. [2]

(b) Name the gland that releases adrenaline and describe **three** effects it has on the body. [4]

(c) Explain how each of the three effects helps the person deal with danger. [3]

(d) Compare nervous and hormonal control under **three** headings: how the message travels, how fast it acts, and how long the effect lasts. [3]
