

14.3 Hormones in humans

01.0610_m22_qp_22 Q: 27

A person eats a large bowl of rice. Rice contains starch.

What happens to the amounts of insulin and glucagon in their body?

	insulin	glucagon
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

02.0610_m21_qp_22 Q: 26

Hormones and the nervous system both control our bodies.

Which statement about the control provided by our hormones is correct?

- A** fast response and long lasting
 - B** fast response and short lived
 - C** slow response and long lasting
 - D** slow response and short lived
-

03.0610_s21_qp_21 Q: 27

What is the effect of adrenaline on pulse rate and blood glucose concentration?

	pulse rate	blood glucose
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

04.0610_s21_qp_22 Q: 26

What is the result of the release of adrenaline?

	blood glucose concentration	breathing rate
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

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05. 0610_s21_qp_23 Q: 27

Which row correctly compares hormonal control with nervous control?

	speed of action of hormonal control	how long the effects of the hormone lasts
A	rapid	short
B	slow	long
C	rapid	long
D	slow	short

06. 0610_w21_qp_21 Q: 26

How does the body increase blood glucose concentration?

- A** Insulin released by the liver triggers the pancreas to release glucose.
- B** Glucagon released by the pancreas triggers the liver to release glucose.
- C** Insulin released by the pancreas triggers the liver to release glucose.
- D** Glucagon released by the liver triggers the pancreas to release glucose.

07. 0610_s20_qp_22 Q: 25

Which glands are endocrine glands?

- A** adrenal, pancreas, testes
- B** adrenal, ovaries, salivary
- C** ovaries, sweat, testes
- D** pancreas, salivary, sweat

08. 0610_s20_qp_22 Q: 26

What are the effects of insulin and adrenaline on the concentration of blood glucose?

	effect of insulin on blood glucose concentration	effect of adrenaline on blood glucose concentration
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

09. 0610_s20_qp_23 Q: 24

What change occurs in a 'fight or flight' situation?

- A constriction of pupils
- B decrease in breathing rate
- C decrease in pulse rate
- D increase in blood glucose concentration

10. 0610_w20_qp_21 Q: 25

When hormones are secreted, they affect different parts of the body.

The table shows some features that are affected by four different hormones.

Which hormone is adrenaline?

	feature				
	pulse rate	blood glucose concentration	pupil size	menstrual cycle	sperm production
A	✓	✓	x	x	x
B	x	x	x	x	✓
C	✓	✓	✓	x	x
D	x	x	x	✓	x

key
 ✓ = affected by hormone
 x = not affected by hormone

11. 0610_w20_qp_23 Q: 26

Which substances can be misused to improve athletic performance?

- 1 alcohol
- 2 anabolic steroids
- 3 testosterone

- A 1, 2 and 3
- B 1 and 2 only
- C 2 only
- D 2 and 3 only

12. 0610_m19_qp_22 Q: 26

Which statement about adrenaline is correct?

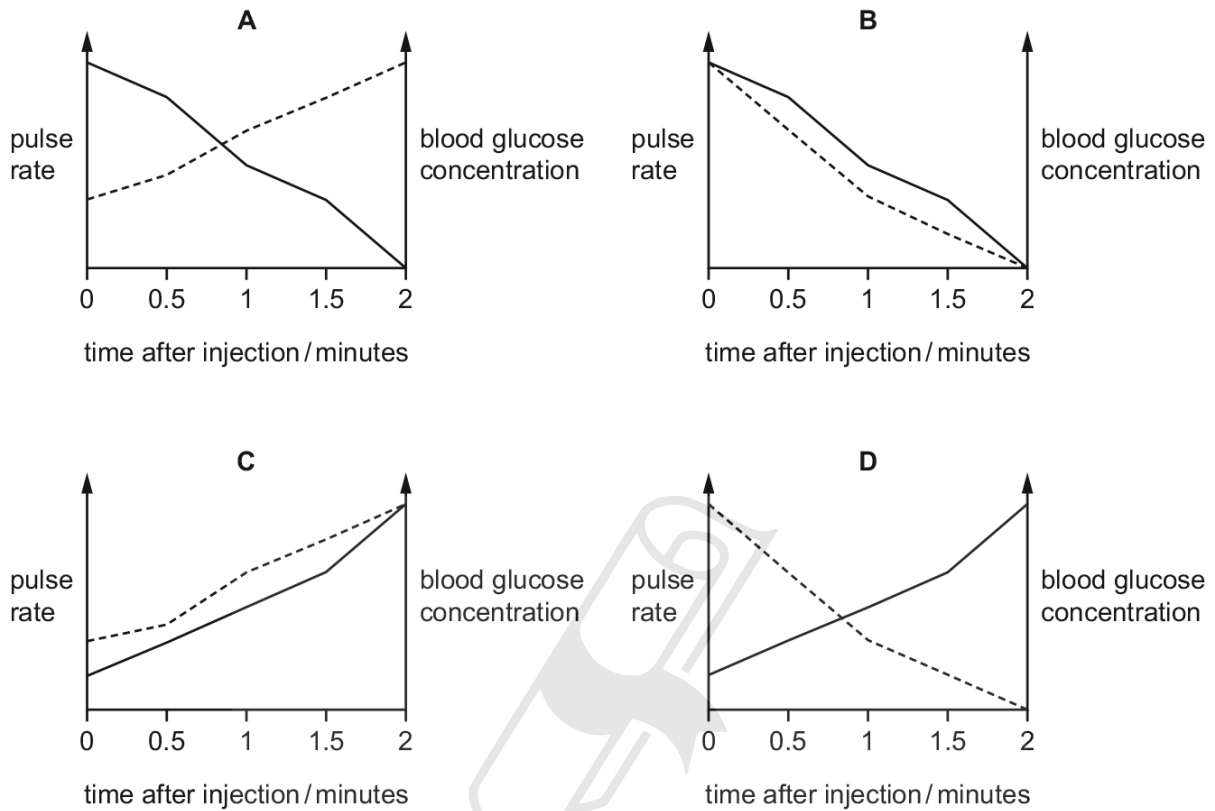
- A Adrenaline causes the pupils to narrow.
- B Adrenaline increases blood glucose concentration.
- C Adrenaline secretion increases when at rest.
- D Adrenaline slows down the pulse rate.

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13. 0610_s19_qp_21 Q: 27

A patient is injected with adrenaline.

Which graph shows the expected changes to pulse rate and blood glucose concentration?



key
 ----- pulse rate
 _____ blood glucose concentration

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14. 0610_w19_qp_21 Q: 24

More adrenaline is produced by the adrenal glands when a person is frightened.

This increase affects several parts of the body.

	change	increases	decreases	
1	blood glucose concentration	X	✓	key
2	heart rate	✓	X	✓ = yes
3	breathing rate and depth	✓	X	X = no
4	dilation of pupil	X	✓	

Which rows are correct?

- A** 1 and 3 **B** 1 and 4 **C** 2 and 3 **D** 2 and 4
-

15. 0610_s18_qp_21 Q: 24

Which hormone is involved in the conversion of glucose to glycogen?

- A** adrenaline
B insulin
C oestrogen
D testosterone
-

16. 0610_s18_qp_22 Q: 25

Hormones and the nervous system both control our bodies.

Which statement about the control provided by our hormones is correct?

- A** fast response and long lasting
B fast response and short lived
C slow response and long lasting
D slow response and short lived
-

17. 0610_s18_qp_23 Q: 25

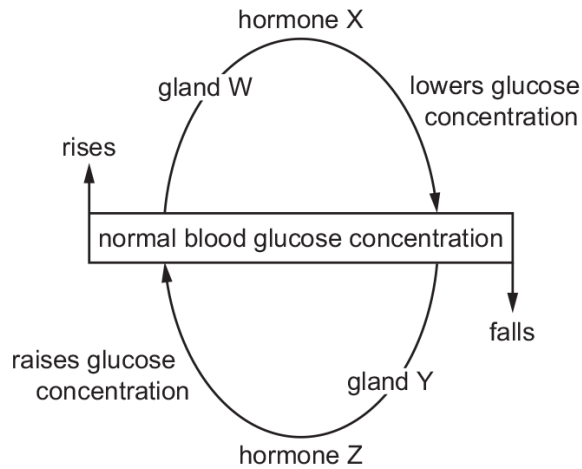
Compared to the hormonal system, the responses of the nervous system are

- A** faster and of longer-duration.
B faster and of shorter-duration.
C slower and of longer-duration.
D slower and of shorter-duration.
-

14.3. HORMONES IN HUMANS

18. 0610_m17_qp_22 Q: 22

The diagram shows the mechanisms that control the concentration of glucose in the blood.



Which row identifies the glands and hormones labelled W, X, Y and Z?

	gland W	hormone X	gland Y	hormone Z
A	adrenal gland	adrenaline	adrenal gland	glucagon
B	adrenal gland	adrenaline	pancreas	insulin
C	pancreas	glucagon	adrenal gland	insulin
D	pancreas	insulin	pancreas	glucagon

19. 0610_m17_qp_22 Q: 23

Which row shows the effects of increased adrenaline release?

	breathing rate	pulse rate	pupil
A	decreases	increases	widens
B	increases	decreases	widens
C	increases	increases	narrows
D	increases	increases	widens

20. 0610_s17_qp_21 Q: 25

What is the result of the release of adrenaline?

	blood glucose concentration	pulse rate
A	decreased	decreased
B	decreased	increased
C	increased	decreased
D	increased	increased

21. 0610_s17_qp_22 Q: 25

Which is the result of the release of adrenaline?

- A** constriction of pupils
- B** decrease in breathing rate
- C** decrease in pulse rate
- D** increase in blood glucose concentration

22. 0610_w17_qp_21 Q: 24

Four effects of a specific hormone are listed.

- increased blood pressure
- increased blood glucose concentration
- increased rate of respiration
- reduced blood flow to the gut

What is this hormone?

- A** adrenaline
- B** glucagon
- C** insulin
- D** testosterone

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23. 0610_w17_qp_23 Q: 24

A student begins to lose control of her bicycle while travelling down a hill at speed.

The concentration of which substance will begin to increase rapidly in her blood?

- A adrenaline
 - B insulin
 - C oestrogen
 - D testosterone
-

24. 0610_m16_qp_22 Q: 27

What is **not** an effect of the hormone adrenaline?

- A decreased production of sweat
 - B dilated pupils
 - C increased blood glucose
 - D increased pulse rate
-

25. 0610_s16_qp_22 Q: 24

What are the effects of adrenaline?

	breathing rate	pulse rate
A	decreased	decreased
B	increased	increased
C	increased	no effect
D	no effect	increased

26. 0610_s16_qp_23 Q: 25

What effect does adrenaline have on blood glucose concentration and pulse rate?

	blood glucose concentration	pulse rate
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

27. 0610_w16_qp_21 Q: 26

When the blood glucose concentration is low, which hormone is released and which organ releases it?

	hormone	organ
A	glucagon	liver
B	glucagon	pancreas
C	insulin	liver
D	insulin	pancreas



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SN	Paper	Q. No.	Answer
01	0610_m22_qp_22	27	C
02	0610_m21_qp_22	26	C
03	0610_s21_qp_21	27	D
04	0610_s21_qp_22	26	D
05	0610_s21_qp_23	27	B
06	0610_w21_qp_21	26	B
07	0610_s20_qp_22	25	A
08	0610_s20_qp_22	26	B
09	0610_s20_qp_23	24	D
10	0610_w20_qp_21	25	C
11	0610_w20_qp_23	26	D
12	0610_m19_qp_22	26	B
13	0610_s19_qp_21	27	C
14	0610_w19_qp_21	24	C
15	0610_s18_qp_21	24	B
16	0610_s18_qp_22	25	C
17	0610_s18_qp_23	25	B
18	0610_m17_qp_22	22	D
19	0610_m17_qp_22	23	D
20	0610_s17_qp_21	25	D
21	0610_s17_qp_22	25	D
22	0610_w17_qp_21	24	A
23	0610_w17_qp_23	24	A
24	0610_m16_qp_22	27	A
25	0610_s16_qp_22	24	B
26	0610_s16_qp_23	25	D
27	0610_w16_qp_21	26	B



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