

25. HB.1 · Hormones, stress and behavioural regulation

Starter Quiz ·

GRE Subject Test · GRE Psychology

Name: _____ Score: _____

1. After an acute challenge, which listed response generally has the faster onset?
 - ☐ melatonin from the pineal gland
 - ☐ progesterone
 - ☐ cortisol from the adrenal cortex
 - ☐ adrenaline from the adrenal medulla
2. A direct receptor-mediated response to a hormone requires an appropriate receptor in the target cell.
 - ☐ True ☐ False
3. Cortisol reducing further CRH and ACTH release is an example of _____ feedback.

4. Normal cortisol secretion must be zero whenever no acute stressor is present.
 - ☐ True ☐ False
5. A morning cortisol sample is higher than a late-evening sample. What must be considered before attributing the difference to a stressful event?
 - ☐ The assumption that all hormone effects are slow.
 - ☐ Only the name of the hormone.
 - ☐ Normal daily timing and relevant sleep/activity conditions.
6. One cortisol measurement is high relative to another person's measurement. Which conclusion goes beyond the observation alone?
 - ☐ The values differ under the sampling conditions.
 - ☐ The first person necessarily has a chronic stress pattern and a particular emotion.
 - ☐ Time, exposure and context may need comparison.
7. Which statement best fits the lesson's oxytocin example?
 - ☐ Milk ejection and milk production are identical processes.
 - ☐ It contributes to uterine contractions and milk ejection, while one blood measurement does not uniquely identify bonding.
 - ☐ It has only one function: causing trust.
8. Which selected role is associated with glucagon?

- ☐ Promoting glucose release from the liver.
- ☐ Guaranteeing immediate sleep.
- ☐ Serving as the only hormone present in blood.

9. Which approach best fits the lesson?

- ☐ Identify the pathway, target, timing and measurement before drawing a conclusion.
- ☐ Treat one hormone value as a unique emotion label.
- ☐ Interpret feedback as an irreversible off switch.

25. HB.1 · Hormones, stress and behavioural regulation

Answers ·

GRE Subject Test · GRE Psychology

1. **adrenaline from the adrenal medulla**

Adrenal medullary adrenaline release can contribute rapidly over seconds. A challenge-related cortisol rise through the HPA pathway generally develops more slowly. This comparison concerns responses to the challenge, not absence of baseline cortisol.

2. **True**

An appropriate receptor is necessary for that direct response, but exposure and downstream processes also matter. Other cells can change indirectly through the effects on responding tissues.

3. **negative**

Negative feedback opposes further activity in the producing pathway. It does not require permanent shutdown or zero cortisol during normal regulation.

4. **False**

Cortisol participates in ongoing regulation and varies daily and over shorter periods. A lack of an acute stressor does not imply zero secretion.

5. **Normal daily timing and relevant sleep/activity conditions.**

The daily rhythm can contribute to the difference. Comparing different sampling times does not isolate an event effect.

6. **The first person necessarily has a chronic stress pattern and a particular emotion.**

A single comparison does not establish a chronic pattern, emotion or causal explanation. Relevant sampling conditions and repeated observations matter.

7. **It contributes to uterine contractions and milk ejection, while one blood measurement does not uniquely identify bonding.**

Physiological roles and complex behavioural interpretations are different claims. A selected role is not an exclusive function.

8. **Promoting glucose release from the liver.**

Glucagon helps raise blood glucose through liver actions. Regulation involves multiple signals and context.

9. **Identify the pathway, target, timing and measurement before drawing a conclusion.**

Hormone effects and measurements belong to regulated systems with multiple roles and context-dependent responses.