

# Stress and the neuroendocrine response

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Stress and the Neuroendocrine Response Affiliation Stress and the Neuroendocrine Response Question Acute Vs Chronic Stress Acutestress results from precise circumstances that are either unpredictable, affect the ego of the individual thus leaving them with a reduced sense of control. The hormones that are produced in this type of situation assist the body to deal with the situation that the individual is facing. Acute stress lasts for a short duration of time and is beneficial in the fact that it motivates the person. The symptoms of acute stress include dizziness, stomachache, and shortness of breath as well as chest pains. On the other hand, chronic stress is long term and results from a situation that has not been resolved for a long duration of time and continues to disturb that person. For instance, traumatic events that happened to a person such as family abuse, illness or a relationship breakup. Chronic stress leads to other body complications such as stomach ulcers or heart diseases. This type of stress is treated via cognitive behavioral therapy and through medication (Buckingham, Gillie, & Cowell, 1997).

#### Question 2

The hypothalamus in the brain is in responsible of the stress response. When a stress response is activated, this part sends signals to two other constituents namely the pituitary gland, and the adrenal medulla. This signal is in form of a hormone, the pituitary and adrenal glands that are both in the kidneys and the brain are responsible for receive the stress alert (Gunderson & Rahe, H. 1994).

#### Question 3

A hormone is a signaling molecule that is generated by the glands found in

the multicellular organisms that are conveyed by the circulatory system to isolated organs with the aim of regulating the behavior and physiology of an individual. The hypothalamus stimulates hormones such as cortisol and adrenaline that assist a problem to deal with any pressure or threat that they are facing; this is referred to as fight response. Adrenaline hormone enable the heart rate to increase, the blood pressure also increase and thus provides the body with extra energy. The person is able to run away from the threat. These hormones also enable the suppressing of bodily roles such as digestion that are not needed. When the hormone level fails, the body is able to adjust itself and the blood pressure return to the average rate.

#### Question 4

The hypothalamic-pituitary-adrenal axis (HPA) is a compound set of undeviating influences and response interactions in the middle of three endocrine glands namely the hypothalamus, the pituitary gland and the adrenal glands. Hypothalamic Pituitary-Adrenal (HPA) system is responsible for regulating short term stress in the human body. However, excess production of HPA axis result to a deterioration memory.

#### Question 5:

An individual may be unable to control stress, but they can manage it. The initial step is accepting the events that are happening in your life and that are beyond your control. This is followed by maintaining a positive attitude. One of the best ways of being positive is being active; this can be via day to day activities or most importantly through physical exercise. Physical exercise has been proven to make people feel strong mentally. The most important that a stressed person ought to avoid is to pick up unhealthy

behaviors such as drinking and smoking. Smoking and drinking does not reduce or control stress, this is a myth (Buckingham, Gillies, G. & Cowell, 1997).

#### References

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