

The Biological Response to Stress

Copy the sheet into your notes, or onto your index cards. Use your textbook to fill in the missing words.

Learning to understand stress

The earliest research into stress was conducted by _____ in the 1930s. He did research into _____ and discovered they responded to daily _____ by developing _____.

An unpleasant event or situation is known as a _____. The physiological reaction is known as _____.

The stress response

A stress response is essential in animals because it prepares the organism for _____ or _____.

This suggests that the stress response is _____ or essential for survival.

Physiological changes

Physiology refers to _____.

Serious physiological change occurs in rats when they were in _____ and powerless to _____.

Stress responses occur in humans when they are exposed to a stressor over a period of _____.

The evolution of stress responses

Stress responses developed as a survival technique during EEA or _____.

They develop to provide the animal with a responsiveness in times of danger that offers one of two options, known as _____ or _____.

The autonomic nervous system

Sudden stress experiences are known as _____ stress _____. They occur quickly and the body responds appropriately.

Other stress experiences last for a period of months. They are _____ stressors.

The body responds in different ways to each stressor.

The autonomic nervous system

The _____ is automatic and governs itself. The organism cannot control it.

This is essential, because some bodily functions have to be automatic because when we are frightened, we find it difficult to think.

Examples of bodily functions governed by the _____ include: _____, _____, _____ and _____.

The role of hormones in stress reactions

Chemical substances that circulate in your blood and control your body are known as _____.

The hormone _____ or, as the Americans call it, _____ has a strong effect on the Sympathoadreno-medulary system or SAM system.

We can seek the effect of _____ on the system because it can be pleasurable. The experience of seeking thrills to trigger adrenaline is known as _____.

Adrenaline

This is produced in a small gland above the kidneys known as the _____.

A sudden production of adrenaline produces symptoms such as _____, _____, _____ and _____.

Chronic stress

When stress becomes long-term or chronic, it affects the _____ axis.

The _____ part of the brain is triggered. This stimulates a gland in the head, the _____ to secrete adrenocorticotrophic hormone or _____.

The purpose of this system is to control the _____ supplies to the body and enables the body to cope with the stressor.

Further activities

1. Summarise Selye's GAS model
2. What problems are there with the fact that Selye's research was conducted on rats?
3. Why do humans with no adrenal glands require hormones?
4. How have Sheridan and Radmacher criticised the GAS model?