

1f. Stress - GAS

Selye's General Adaptation Syndrome (GAS):

- A 3-stage physiological response to stress
- Occurs regardless of the stressor that is encountered
- Adrenaline and noradrenaline induce fast-acting and intense responses in the body

STAGE 1 - Alarm:

- Person becomes aware of stressor
- Alarm is experienced in two phases: shock then countershock.
- During **shock**, the body responds as though it is injured. Body temperature and blood pressure momentarily drop.
- During **countershock** the fight - flight response is activated to prepare the person to deal with the challenge or stressor.

→ It is during this stage that people who are given bad news are most vulnerable and have been known to faint or, in extreme circumstances, have a heart attack—which is why people are often asked to sit down before receiving the news.

STAGE 2 - Resistance:

- **Physiological arousal such as stress-related hormones (adrenalin and cortisol) continue to circulate through the body, keeping it prepared for action.**
- All unnecessary physiological processes are shut down. For example, digestion, growth and sex drive stall, menstruation stops, and the production of testosterone and sperm decrease.

- **'Energy conservation' - the person tries to focus on the stressor(s) at hand.**
 - Because cortisol weakens immune system activity, its continuing presence at an abnormally high level interferes with the body's ability to fight disease and to protect itself against further damage. This means that even though the ability to deal with the effects of the initial stressor increases during this stage, resistance to other stressors, such as illness or disease, may decline.
- People may show signs of social withdrawal by declining invitations to go out or seeking to be on their own, absenteeism from work or school, difficulty focusing or forgetfulness. They may appear withdrawn, absentminded, tearful or angry.

STAGE 3 - Exhaustion:

- If the effort to deal with the initial stressor during the resistance stage is successful, the organism will have adapted to the stressor and the body eventually returns to its normal 'balanced' (homeostatic) state of functioning.
- If the stressor is not dealt with successfully during the resistance stage, and stress continues, the organism enters an exhaustion stage
- Physical disorders can include extreme fatigue, physical wear and tear, hypertension, gastrointestinal problems and heart disease, possibly death.
- Depleted resources in dealing with the stressor/stress weaken the organism, exhaustion sets in and becomes more vulnerable to physical and mental disorders
- Mental disorders can include high levels of anxiety, symptoms of depression and nightmares

GAS:

Strengths	Limitations
<ul style="list-style-type: none">• Describes and explains both immediate and long-term effects of stress with reference to research• Highlights both specific and non-specific aspects of stress• Developed awareness and understanding of a link between stress and disease• It made the important connection between extreme prolonged stress and certain diseases.• Identifies biological processes associated with the body's stress response e.g. roles of the endocrine system	<ul style="list-style-type: none">• Does not fully take account of or explain individual differences in physiological responses to a chronic stressor• A 'one size fits all' model• Tends to overlook the roles of bodily systems other than the endocrine system in the stress response• Even though Selye used rats in his research, he applied his model (GAS) to humans without considering key psychological and environmental factors that are unique to humans, such as the perception and interpretation of the situation• The model failed to recognise the role of emotion and cognition in how a person perceives and evaluates the stressor• Selye's findings could not be generalised to people because his research involved non-human subjects.