

### 3.3: The Stress Response

The **fight-or-flight response** (also called the **stress response**) is a physiological reaction that occurs in response to a perceived threat or danger. This enables the body to take action quickly, and is intended to keep us out of (physical) harm's way. Unfortunately for our health, this response also occurs when we are not in any immediate physical danger, but are still experiencing stress. For example, this can happen when someone is running late for an appointment or class, and is feeling stressed about trying to get there.

The physical changes that occur during this response can cause wear and tear within the body if the perception of stress persists. Here are a few examples of such bodily changes:

- Heart rate increases
- Blood pressure increases
- Blood sugar (i.e. glucose) levels rise
- Respiration rate increases
- Muscles tense up
- Perspiration increases
- Pupils dilate

For additional information about how these physiological changes occur, [click here to read more](#).

The fight-or-flight response is also recognized as the first stage of the General Adaptation Syndrome.

#### General Adaptation Syndrome



#### Stages of the General Adaptation Syndrome

**Homeostasis** is a state of physiological calmness or balance, and occurs when our bodily functions are running smoothly in conjunction with low stress levels. When exposed to stressors, this causes an imbalance to occur as the body responds to the perceived threat, and then tries to return to normal functioning.

The **general adaptation syndrome (GAS)**, developed by Hans Selye, describes the pattern of responses that the body goes through after being prompted by a stressor. There are three stages: alarm, resistance, and exhaustion.

- **Alarm** – This occurs when we first perceive something as stressful, and then the body initiates the fight-or-flight response (as discussed earlier).
- **Resistance** – If the perceived stress continues, the body stays activated at a higher metabolic level in an effort to offset the persistent stress. The body cannot maintain this level indefinitely, and its resources will eventually deplete.
- **Exhaustion** – Prolonged exposure to the stressor will result in the depletion of the body's resources, and the resulting wear and tear will suppress the immune system and cause bodily functions to deteriorate. This can lead to a variety of health issues and illnesses, including heart disease, digestive problems, depression, and diabetes.

These changes will occur in the body regardless of whether the perceived stressor is considered eustress (positive or pleasant) or distress (negative or unpleasant). Ultimately, this means that we need to take active steps in managing all of our stressors, as it can

build up and potentially cause harm to our health otherwise.

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- Diagram of the General Adaptation Syndrome. **Authored by:** David G. Myers - Exploring Psychology 7th ed. (Worth) page 398. **Located at:** [https://en.Wikipedia.org/wiki/Stress\\_\(biology\)#/media/File:General\\_Adaptation\\_Syndrome.jpg](https://en.Wikipedia.org/wiki/Stress_(biology)#/media/File:General_Adaptation_Syndrome.jpg). **License:** *CC BY: Attribution*
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