



## Unit 1 Information Sheet

### The acute stress response

#### What is the acute stress response?

The fight-flight-or freeze response, also known as the acute stress response, refers to a psychological reaction that occurs in the presence of something that is terrifying, either mentally or physically.

The fight-or-flight response was first described in the 1920s by American physiologist Walter Bradford Cannon. Cannon realised that a chain of rapidly occurring reactions inside the body help mobilise the body's resources to deal with threatening circumstances. Cannon realised that, in response to acute stress, the body's sympathetic nervous system is activated due to the sudden release of specific hormones.

The sympathetic nervous systems stimulates the adrenal glands triggering the release of catecholamines, which include adrenaline and noradrenaline. This results in an increase in heart rate, blood pressure and breathing rate. After the threat is gone, it takes between 20 to 60 minutes for the body to return to its pre-arousal levels.

Essentially, the response prepares the body to either fight or flee the threat. It is also important to note that the response can be triggered due to both real and imaginary threats. In the years since Canon's research, a third category of response called "freeze" has been added to account for a person's inability to react by fighting or fleeing in a threatening situation.

#### Why is the acute stress response helpful?

The acute stress response plays a critical role in how we deal with stress and danger in our environment. When we are under threat, the response prepares the body to deal with the threat in one of three ways. These three responses represent the body's way of physical (and as some research has shown, emotional) survival.

The acute stress response can be triggered by both real and imaginary threats. By priming your body for action, you are better prepared to perform under pressure. The

stress created by the situation can actually be helpful, making it more likely that you will cope effectively with the threat.

This type of stress can help you perform better in situations where you are under pressure to do well, such as at work or school. And in cases where the threat is life-threatening, the response plays a critical role in your survival. By gearing you up to fight, flee or freeze, your body helps to make it more likely that you will survive the danger.

### **When can the danger be unhelpful?**

While the acute stress response happens automatically, that doesn't mean that it is always accurate. Sometimes we respond in this way even when there is no real threat. For example, phobias can often trigger a fight/ flight/ freeze response when there is no real threat but merely a perceived one.

A person who is terrified of heights might experience an acute stress response if they have to go to the top floor of a skyscraper to attend a meeting. Their body might go on high alert, with their heartbeat and respiration rate increasing. If the response is severe, it can lead to a panic attack.

Understanding the body's natural response to acute stress is one way to help cope with such situations. When you notice that you are becoming tense, you can start looking for ways to calm down and relax.

The stress response is one of the major topics studied in the rapidly-growing field of health psychology. Health psychologists are interested in helping people find ways to combat stress and live healthier, more productive lives. By learning more about the acute stress response, psychologists can help people explore new ways to deal with their natural reaction to stress.