

Adrenaline

What Does Adrenaline Do?

When a stressful situation occurs and your heart begins to race, your hands begin to sweat, and you start looking for an escape, you have experienced a textbook case of fight-or-flight response. This response stems from the hormone adrenaline. Also called epinephrine, this hormone is a crucial part of the body's fight-or-flight response, but [over exposure](#) can be damaging to health. Because of this, adrenaline is a hormone worth understanding.

What is Adrenaline?

Adrenaline is produced in the medulla in the adrenal glands as well as some of the central nervous system's neurons. Within a couple of minutes during a stressful situation, adrenaline is quickly released into the blood, sending impulses to organs to create a specific response.

What is the Function of Adrenaline?

Adrenaline triggers the body's fight-or-flight response. This reaction causes air passages to dilate to provide the muscles with the oxygen they need to either fight danger or flee. Adrenaline also triggers the blood vessels to contract to re-direct blood toward major muscle groups, including the heart and lungs. The body's ability to feel pain also decreases as a result of adrenaline, which is why you can continue running from or fighting danger even when injured. Adrenaline causes a noticeable increase in strength and performance, as well as heightened awareness, in stressful times. After the stress has subsided, adrenaline's effect can last for up to an hour.

Problems Associated with Adrenaline

Adrenaline is an important part of your body's ability to survive, but sometimes the body will release the hormone when it is under stress, but not facing real danger. This can create feelings of dizziness, lightheadedness and vision changes. Also, adrenaline causes a release of glucose, which a fight-or-flight response would use. When no danger is present, that extra energy has no use, and this can leave the person feeling restless and irritable. Excessively high levels of the hormone due to stress without real danger can cause heart damage, insomnia and a jittery, nervous feeling.

Medical conditions that cause an overproduction of adrenaline are rare, but can happen. If an individual has tumors on the adrenal glands, for example, he/she may produce too much adrenaline; leading to anxiety, weight loss, palpitations, rapid heartbeat and high blood pressure. Too little adrenaline rarely occurs, but if it did it would limit the body's ability to respond properly in stressful situations.