

## HORMONES

### *(Grammar and Structure)*

Read the text below and think of the word which best fits each gap. Use only ONE word in each gap.

#### EPINEPHRINE: THE BODY'S EMERGENCY ALARM

Epinephrine, more commonly recognized (1) \_\_\_\_\_ adrenaline, is a crucial hormone manufactured (2) \_\_\_\_\_ the adrenal glands. It serves as the primary trigger for the human body's fight-or-flight mechanism, readying us to react swiftly (3) \_\_\_\_\_ faced with stressful or hazardous environments.

Upon sensing danger, the brain transmits an immediate alert to the adrenal medulla, (4) \_\_\_\_\_ then prompts the sudden release of adrenaline into the bloodstream. This sparks a series of rapid physical adaptations: the heart beats faster, blood pressure spikes, and respiratory airways expand to boost oxygen intake. At the same time, blood is diverted away (5) \_\_\_\_\_ non-essential systems, such as digestion, and redirected toward the muscles and brain to maximize physical performance.

The successful isolation of this hormone occurred in 1901 thanks to Jokichi Takamine, a Japanese chemist. This breakthrough was a monumental event in endocrinology, representing the first time a hormone (6) \_\_\_\_\_ ever been successfully extracted from animal glands in its pure state. Just three years later, in 1904, Friedrich Stolz achieved its synthetic creation, paving the (7) \_\_\_\_\_ for mass manufacturing in laboratories.

Medically, adrenaline is indispensable. Its most notable application is treating anaphylaxis, a severe and sudden allergic reaction. A prompt injection can halt life-threatening symptoms almost immediately, making (8) \_\_\_\_\_ a mandatory component of emergency medical kits. Furthermore, doctors frequently utilize it to restart the heart (9) \_\_\_\_\_ sudden cardiac arrest.

Nevertheless, experiencing continuous adrenaline spikes as a result of chronic daily stress can severely damage one's health. An overabundance of this hormone over a long period is linked to hypertension, severe anxiety disorders, and an elevated risk of heart disease. In a healthy scenario, once a perceived threat (10) \_\_\_\_\_ vanished, the chemical's effects naturally fade, allowing the body to relax and recover.