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.

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