

Stress Hormones

Stress hormones are chemicals produced by the body in response to stress. They play a crucial role in the “fight-or-flight” response, which prepares the body to handle perceived threats or challenges

Key Stress Hormones

1. Cortisol

- **Description:** Often referred to as the “primary stress hormone,” cortisol is produced by the adrenal glands.
- **Function:** Helps regulate metabolism, blood sugar levels, and immune response. It also plays a role in the body’s stress response by increasing energy availability and mobilizing resources.
- **Impact:** High levels of cortisol can lead to weight gain, high blood pressure, weakened immune function, and impaired cognitive performance.

2. Adrenaline (Epinephrine)

- **Description:** A hormone produced by the adrenal glands that is released during acute stress.
- **Function:** Increases heart rate, blood pressure, and energy levels. It also enhances alertness and prepares the body for immediate physical action.
- **Impact:** Chronic high levels can lead to cardiovascular problems, anxiety, and sleep disturbances.

3. Norepinephrine (Noradrenaline)

- **Description:** Description: A neurotransmitter and hormone produced by the adrenal glands and nervous system.
- **Function:** Works alongside adrenaline to increase alertness, focus, and the fight-or-flight response.
- **Impact:** Excessive norepinephrine can contribute to anxiety, high blood pressure, and stress-related disorders.



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4. Dopamine

- **Description:** A neurotransmitter that plays a role in reward and pleasure systems, and is also involved in the stress response.
- **Function:** Affects mood, motivation, and concentration. It helps the body respond to stress by regulating feelings of pleasure and reward.
- **Impact:** Imbalances can lead to mood disorders, addiction, and decreased motivation.

5. Serotonin

- **Description:** A neurotransmitter that affects mood, sleep, and overall emotional well-being.
- **Function:** Helps regulate mood, anxiety, and stress. Adequate levels contribute to feelings of well-being and calm.
- **Impact:** Low levels are associated with depression, anxiety, and increased sensitivity to stress.

Effects of Stress Hormones on the Body

1. Metabolism and Weight
2. Immune Function
3. Cardiovascular Health
4. Cognitive Function
5. Sleep
6. Mood and Mental Health

Managing Stress Hormones

1. Healthy Lifestyle
2. Stress Management Techniques
3. Social Support
4. Professional Help
5. Healthy Habits



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Conclusion

Stress hormones are essential for the body's response to stress, but chronic elevation can have significant negative effects on health. By understanding the roles and impacts of these hormones, and implementing effective stress management strategies, individuals can better manage their stress and promote overall well-being.



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