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STRESS: HOW IT AFFECTS OUR BODY AND HOW TO COPE WITH IT

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Stress is one of the main factors affecting human health. It impacts the psycho-emotional sphere, as well as cellular and molecular-genetic processes. In the modern world stress impact has increased significantly. According to data from the year of 2024-2025 approximately 37% of the population experience high levels of stress. More than 1 billion people suffer from mental disorders like anxiety disorders (approximately 359 million) and depression (ranging from 280 to 332 million). Chronic stress is observed in 6–8% of the adult population.

This project examines what stress is, its stages and types, as well as how stress affects various organs and systems in the human body. Special attention is paid to coping strategies.

The topic is highly relevant because many people live in a state of chronic stress. This leads to diseases of the heart, blood vessels, and stomach, as well as immune dysfunction and premature aging.

Stress triggers the release of hormones: adrenaline and cortisol. As a result, the heart beats faster, blood pressure rises, and blood vessels constrict. Over time, this can lead to hypertension, heart attack, or stroke. Cortisol damages the walls of blood vessels and contributes to the formation of cholesterol plaques.

The stomach also suffers under stress: the secretion of protective mucus is disrupted, and gastric juice may damage the stomach lining leading to ulcers. Stress also alters intestinal function, causes irritable bowel syndrome, and affects the composition of the beneficial gut bacteria.

Chronic stress weakens the immune system making individuals more susceptible to illness and prolonging recovery time. Moreover, cortisol increases appetite for sweet and high in calories food leading to an increase in visceral fat. This raises the risk of diabetes and heart disease. Stress also shortens telomeres-protective ends of chromosomes-thereby accelerating cellular aging.

The main symptoms of chronic stress include fatigue, poor sleep, irritability, headaches, problems with memory and attention, and disturbances in appetite and sexual function.

The most effective ways to cope with stress include: shifting attention to pleasant activities, engaging in sports or physical work, improving diet, sleeping at least 7-8 hours, practicing breathing exercises, drinking calming herbal teas (chamomile, mint, balm, valerian), taking relaxing baths, crying when necessary, and, in cases of severe stress consulting a psychologist.

In conclusion, stress is a normal part of life. However, what matters is how we respond to it. If we perceive problems as something we can control rather than as a threat, we can stay healthier for a longer period of time.