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Chemistry Biology Geographyu

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# THE ROLE OF HORMONES OF HAPPINESS AND JOY IN HUMAN

LIFE

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**Annotation.** Hormones are biologically active substances that the body produces under the influence of various external and internal factors. Thanks to them, a person is able to experience happiness, bliss and love.

Key words: Hormone, amino acids, substances, happiness, dopamine, serotonin, state.

Modern science has found an explanation for the change in the emotional and physical state of a person - hormones are to blame. What is it? Hormone (from the Greek "I excite", "I bring into action") are biologically active substances that our body produces under the influence of various external and internal factors. Thanks to them, a person is able to experience happiness, bliss, love. The lack of these substances is manifested by apathy and spleen, lack of energy and mood. In spring, according to biological rhythms, a "hormonal" rise is observed, which is why sympathy, love, and vitality increase more often. A person's hormonal background undergoes changes throughout life due to health problems, malnutrition, stress and chronic fatigue, agerelated changes. If a hormonal failure occurs, it is very important to contact an endocrinologist in a timely manner, who will diagnose the problem and help restore the proper functioning of the endocrine system of the body.

Hormones are biologically active substances that are formed and released into the internal environment of the body by endocrine glands, or endocrine glands. They regulate the functions of organs remote from their place of excretion. The term "hormone" in Greek means "prompting to action", although not all hormones have a stimulating effect.

At the moments when the brain recognizes phenomena favorable for our survival, special neurochemical substances are synthesized and released - "happiness hormones". Each of which leads a person to certain positive sensations. The brain activates their synthesis when it feels the need to satisfy survival needs, which can be the need for food, security, social support, etc. However, the level of "happy hormones" drops sharply after a short-term release until the next need and a pleasant occasion. That is why our mood changes, we feel the ebb and flow of energy and motivation. The main hormones that make our world brighter and more pleasant are dopamines, serotonins, endorphins and oxytocins.

Dopamine is a hormone that is synthesized in the brain, adrenal glands, kidneys, and intestines. In the adrenal glands, it is the precursor of adrenaline and

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noradrenaline, the main stress substances in the body. The release of dopamine leads to an increase in blood pressure, an increase in the frequency and strength of heart contractions, and an increase in blood oxygen saturation. Dopamine increases fluid filtration and blood flow in the kidneys, promotes faster excretion of sodium in the urine. The release of this hormone also occurs in shock situations, when a person experiences severe pain or fear. Dopamine helps to adapt to difficult conditions and does not allow you to die from fear or unbearable pain. Dopamine is also classified as a neurotransmitter - with its help, a nerve impulse is transmitted between two neurons.Dopamine is also classified as a neurotransmitter - with its help, a nerve impulse is transmitted between two neurons. The primary role of dopamine, as a neurotransmitter, plays in the following processes: the formation of motivation, enjoyment, curiosity, the desire to seek answers to questions and learn something new, improve cognitive functions, form attachment and unleash creativity. Dopamine ensures survival by prompting the body to what exactly should be used energy. If something worthwhile, in your opinion, is in your field of vision, a certain bonus, a trophy, dopamine is released. It encourages action, makes you do everything possible to achieve the goal. For an athlete, such a trophy can be the finish line on the horizon, seeing it, he feels a surge of strength and motivation. That feeling that dopamine evokes is the pleasure of impending success. Primates experience such sensations when they see a fruit on a tree. For a modern person, the extraction of food has not been an extremely difficult task for a long time, and a basket with berries certainly causes pleasant sensations, but they are rather short-lived. Therefore, the brain "saves" dopamine for such purposes, it does not see the point in expending a large amount of energy to get food. Another thing is professional or social activity. Seeking and receiving rewards from society is a sufficient incentive to release dopamine. However, the lifespan of this hormone is not long, so each time you have to strive for a new reward, look for a new stimulus to reactivate the synthesis of dopamine. to kid. The influence of dopamine on cognitive functions and the learning process has also been established. The hormone helps to memorize new information more easily and stimulates the desire to search for information, thereby facilitating and speeding up the learning process.

Serotonin. Just like dopamine, serotonin is a hormone and a neurotransmitter. Only about 5% of serotonin is synthesized in the brain, and most of it, about 80-90%, is synthesized in the intestine. Serotonin regulates intestinal motility and uterine contractions during childbirth. The amino acid tryptophan is essential for the formation of serotonin. This amino acid cannot be synthesized in the body, that is, it is indispensable and enters the body only with food.Tryptophan is rich in dairy products, dates, figs, plums, dark chocolate, soy, and tomatoes. The conversion of tryptophan to serotonin provides vitamin D, so sun exposure also helps us become happier.

The field of activity and effects of serotonin is extremely large. It affects almost every system in the body. As a "happiness hormone", serotonin gives us a sense of self-importance. It is released, among other things, when we feel respect for our person from others, in connection with which the body begins to feel comfortable and confident. Also, serotonin helps us regulate anxiety and anxiety, reduce depressive background. When there is enough serotonin, we feel emotionally stable, calm, happy. But this is the result of only about 5% of the serotonin that works in our brain. The rest of serotonin is responsible for the following processes: regulation of sleep and wakefulness, regulation of bowel function, blood clotting, contraction of the uterus and fallopian tubes during childbirth, lowering the pain threshold, control in reproductive function.

Endorphins are a group of endogenous opioid peptides. They are formed mainly in the brain from beta-lipotropin, which is produced by the pituitary gland. In addition to the brain, endorphins can be produced in the adrenal glands, pancreas, intestines, dental pulp, taste buds. "Euphoria" - this is how we call the state that endorphins give us. However, endorphin synthesis is not initiated by good news, but, first of all, by physical pain. Endorphin "masks" the pain for a while to give us the opportunity to survive, to be saved. For example, after a severe injury, such as a broken bone or burn, during combat, in athletes in competition. Endorphin helps us get out of stress without a breakdown, maintain common sense, assess the situation, draw conclusions about what actions are currently necessary to save life. Euphoria is accompanied by feelings of joy and delight. But pain cannot be "masked" for a long time, since it serves as a signal that says "not everything is in order in the body", so the effect of endorphins is not long-lasting. A person also feels a surge of endorphin when laughing or crying. Have you noticed that lovers often laugh together? And, probably, they fall in love at this moment even more, because joint laughter activates the secretion of endorphins. Other functions of endorphins are stimulation of healing processes, control of the activity of the endocrine glands, and normalization of blood pressure.

Oxytocin is a peptide hormone of the hypothalamic nuclei that accumulates in the posterior pituitary gland of the brain, and from there it is released into the blood.The hormone of hugs, touches and motherhood - oxytocin is associated with perhaps the most pleasant processes. Oxytocin accompanies the entire cycle of reproductive function. Oxytocin is also released during childbirth, it promotes contractions of the uterus and cervix. In the future, oxytocin plays an important role during lactation. The birth of a child causes a significant surge of oxytocin in both mother and child. What is especially revealing is the effect of oxytocin in animals:

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the hormone makes the newborn instinctively cling to the mother, although the baby does not realize the danger of losing her. Oxytocin is produced with touch and a sense of trust. More precisely, the release occurs immediately before physical contact, it is believed that the stimulus is the expectation of a pleasant contact, and not the contact itself. The feeling that you can count on someone, trust someone or someone trusts you, as well as a sense of security in group relationships - all this is the result of the action of oxytocin. Alcohol can inhibit the production of oxytocin, as well as the lack of close contact, hugs and communication.

In conclusion, we can say that the connection of a healthy person with the environment largely depends on these hormones, that he does not lose himself in different cases, gets out of any situation and does not get sick.

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