

**МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РФ
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FORMULA FOR LOVE

X. Gavrilova
gks-2510@mail.com

Dr. Helen Fisher, PhD biological anthropologist, Senior Research Fellow, at The Kinsey Institute, Indiana University proposes three stages of love: lust, attraction, attachment.

Stage one: driven by the sex hormones testosterone and estrogen.

Stage two: dopamine and serotonin create attraction.

Stage three: oxytocin and vasopressin mediate.

In this paper I would like to answer the questions: how these hormones affect the state we call love? And is it possible to regulate the level of love?

Firstly, testosterone in men is responsible for sociosexuality while estrogen has rather an effect primarily on sexual dimorphism than on sexual activity. According to the experiments with dopamine norepinephrine on people, these hormones regulate sexual desire.

Secondly, the experiments on mice showed that it is necessary to coordinate work of serotonin and oxytocin signaling systems for a mouse to communicate with its relatives and enjoy it. Also, dopamine is of great importance, as it is the most important neurotransmitter of the reward system.

Oxytocin regulates both the sexual behavior of females (childbirth, lactation, attachment to children) and makes men more susceptible to signals and stimuli that carry the information necessary for good relationships (friendship or sexual relationship) with other people. When women receive nasal vasopressin, strangers' faces seem nicer and more pleasant for them and the women themselves become friendlier with facial expressions which are more attractive for men. The effect is opposite in case of men.

According to Dr. A. Markov, regulation of oxytocin and vasopressin in animals allows them to be friendlier and even monogamous. Whether it is true for people requires additional research and people's willingness to abandon the familiar romanticized image of the word «love».

Academic advisor – senior lecturer E.V. Vychuzhanina