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## **HOW OUR BRAINS MAKE MEMORIES**

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**Relevance.** Memory is the ability of the brain to encode, store, and retrieve information when needed. It is a biologically fundamental function essential for our survival. Memories shape our identity. We are who we are because of our memories on which our thoughts and decisions depend. They influence our emotional reactions. Our ability to transform and consolidate new experiences into long-term memory requires normal functioning of brain structures. Memory is important for learning. On the other hand, it depends on learning. This relationship doesn't stop evolving throughout our lives.

**Aim:** to study the process of memory formation; to study the working mechanisms of memory; to analyze the aspects of the work of memory and the factors which may affect it; to study different types of memory and their main characteristic features; to study some of the common diseases affecting memory and factors contributing to their development.

**Materials and methods.** Sociological and statistical methods were used in order to assess people's interest in our topic and to obtain factual information on the influence of selected memory-affecting factors. Over 110 respondents from 16 to 75 years of age were asked to estimate the impact of content, environmental and subjective memory-affecting factors. Data from a number of scientific resources and medical websites were used to find out topical information on the memory-related terms, concepts and processes.

**Results and discussion.** Several age groups of population took part in our survey. among which 60% of the participants were students (16-21 years old). It was revealed that the emotional state of a person is of great importance for the development of memory. About 70% of the respondents often experience stress and emotional overload. Of considerable interest are memory impairments that arise more from psychogenic than from physical stress. It is known that severe emotional experiences can lead to memory lapses. The quality of sleep plays an equally important role. In our study 63% of the participants sleep 6-8 hours, which is generally the norm. But it should be noted that forgetfulness increases with a decrease in sleep time, starting from 8 hours. Still the optimal time for a good memory is 8 hours of sleep. The connection between sleep and memory quality is about the same as with stress and emotional overload. As in the case of nervous experiences, memory after poor-quality sleep can be restored with rest. We would also like to note that smoking significantly reduces memory, and smokers often complain of severe forgetfulness. Our survey found that 83% of the participants don't smoke cigarettes.

**Conclusions.** Summing up, according to the results of the survey, the majority have a really good memory. One should constantly develop memory from early childhood to old age and monitor your lifestyle, on which many processes in our body and brain respectively depend. In connection with the growth of information load and unhealthy lifestyle in the modern world a problem has arisen with an increase in the number of memory impairments. Therefore, there is a growing demand for well-qualified somnologists trained to treat memory disorders. The development of memory is a vital task that is required to solve everyday affairs, because without memory we cease to be individuals, and it is much more difficult for us to live a full, satisfying life.