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NOOTROPICS ARE

A NEW WAY TO BECOME SMARTER

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Relevance. Today, people are included in constant motion, a state of increased mental activity, which results in the overwork and inhibition of the ability to work for a long time, focus, and be creative. Therefore, many people consider nootropics to maintain the happy active tone of daily life.

Goal: to systemize knowledge about nootropics based on available research data and statistics, to make conclusions about the side effects and benefits of certain groups of nootropics.

Tasks:

1. To classify nootropics based on their usage in different populations;
2. To analyze available research and statistics;
3. To identify adverse effects, side effects, and contraindications of certain types of nootropics;
4. To make conclusions based on the analysis of the scientific information.

The world is changing by becoming more competitive every day. The more competitive the environment is, the more people need mental activity. Brain pills and nootropics are considered to be the best way to enlarge effectivity of the educational process or minimize tiredness. But can nootropics ensure brain activity boosting?

The brain is the most compound and sensitive part of the human body. Despite the miserable weight of the total weight of the body, the brain receives around 1/6 of the body's bloodstream with oxygen in erythrocytes. The spinal cord attaches to the brain to create a general structure of the central nervous system (CNS) that's connected with all regions of the human organism. Thanks to the CNS and nerves brain participates in every activity that controls the way the body works. Nootropics as known as "smart drugs", are a kind of chemical substance that can boost brain activity. Sometimes they are called cognition enhancers or memory-boosting agents. They include over-the-counter substances that can enhance brain performance, attention, and warning — such as creatine, caffeine, omega-3, etc.

Some people think that nootropics are magic pills that can change the function of the human brain's cognitive activity, energy capacity, but some research has proved that nootropics have many side effects.

In medical practice, the most widely used nootropics are lab-created synthetic agents (Piracetam, Modafinil) and natural herbs, such as Ginkgo, Bacopa monnieri, and Panax quinquefolius (American Ginseng).

Some nootropics have an actual use in the practice of medicine. Modafinil is used in the treatment of narcolepsy. Piracetam is used to treat dementia. Natural nootropics have proved their significant role in boosting mental functions while at the same time improving brain health. Nootropics show themselves as vasodilators among small arteries and veins in the brain, the main organs, and peripheral tissues. The introduction of natural nootropics in the human organism increases blood circulation by bringing oxygen, chemical energy, and nutritious agents to the brain.

Results. All nootropics could be classified based on: chemical structure, the mechanism of the cellular action, and the range of effects. Researches on Modafinil say that those taking the nootropic saw improvements in planning and working memory, but not in paired learning. The effects on creativity were not significant. Researchers found that those taking drugs had an increased latency of responses. In sleep-deprived people, it helped to maintain wakefulness, memory but repeated doses of the drug couldn't prevent deterioration of cognitive performance over a long period of sleep deprivation.