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ЭНЕРГЕТИЧЕСКИЕ НАПИТКИ И ИХ ВЛИЯНИЕ НА ОРГАНИЗМ ЧЕЛОВЕКА**Научный руководитель – к.филол.н., доцент Артемова О.Е.**

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В современном мире преобладает повышенный ритм и темп жизни. Что бы справиться с ежедневными стрессовыми ситуациями и нагрузками, а также устранить и подавить усталость, люди принимают всевозможные стимуляторы, такие как: допинги, биологически активные добавки и энергетические напитки. Это тип напитков, **которые содержат вещества, создающие эффект бодрости, прилива сил и энергии. Их часто употребляют студенты в период подготовки к зачетам и экзаменам.** Но какое же влияние они оказывают на организм человека? Откуда берётся чудодейственная энергия? На эти вопросы мы постараемся ответить в своей работе.

Ключевые слова: энергетические напитки, кофеин

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ENERGY DRINKS AND THEIR INFLUENCE ON THE HUMAN BODY**Scientific supervisor – Ph.D., Associate Professor Artemova O.E.**

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In the modern world, an increased rhythm and pace of life prevails. To cope with daily stressful situations and strains, as well as eliminate and suppress fatigue, people take all kinds of stimulants, such as doping, dietary supplements and energy drinks. This is a type of drink that contains substances that create the effect of vivacity, a surge of strength and energy. Students often use them during preparation for tests and exams. However, what effect do they have on the human body? Where does miraculous energy come from? We will try to answer these questions in our work.

Keywords: energy drinks, caffeine

“In Russia, over 10 years, consumption growth has been observed in all young age groups. If in 2013, 16.6% consumed *energy drinks*, then by 2023 – already 22.8%. Accordingly, over the decade the proportion of those who did not use at all decreased, from 83.4 to 77.2%.” [2].

Today, there are more than 500 trade names of *energy drinks* in the world, which differ in their composition and taste. At the same time, the unifying property is that they contain high doses of the main ingredients.

Caffeine is a psychoactive alkaloid. The maximum daily intake for a healthy adult is no more than 150 milligrams. *Energy drinks* on the Russian market contain about 125–160 mg of *caffeine* per 500 ml and 63–100 per 250 ml. Manufacturers often add other sources of *caffeine*: guarana (40 mg of *caffeine* per 1 g of substance), mate or Paraguayan holly (leaves contain 0.7–2.0% *caffeine*). This means that the actual amount of this stimulant in one can will be significantly higher than the normal limit, since the indicated dosage of *caffeine* is given only for the pure substance [1].

Taurine is an amino acid that enters the human body with food in sufficient quantities. The average dose in *energy drinks* is 200-400 mg per 100 g. This is more than enough, in the amount recommended for professional athletes, but for the average person this is a lot [5].

Carnitine is a component that promotes the rapid oxidation of fatty acids and enhances the production of gastric juice. Excess carnitine in the diet is undesirable, as it can reduce the function of thyroid hormones. In addition, being a stimulant, it can provoke insomnia and nervous agitation [1].

Vitamins are essential for many biochemical reactions in the body. They do not have fast “energy” properties and, if consumed in excess, can cause over excitation, headache, and sleep disturbances [2].

When considering the impact of *energy drinks* on human health, it is necessary to take into account both positive and negative aspects.

Positive:

- Gives a feeling of vigor and energy:
- Helps cope with drowsiness for 3 - 4 hours, increases endurance during heavy physical exertion;

Unfortunately, we no longer see the positive properties of *energy drinks*.

Negative:

- As a result of frequent use, blood pressure and blood sugar levels increase, which leads to serious illnesses.

• The acidity of *energy drinks* is lower than the acidity of gastric juice. If you drink them every day or 2-3 times a week, it will interfere with the absorption of nutrients, that is, proteins, fats, vitamins and other important substances will not be absorbed [3].

• May cause relapse in people with diseases of the heart, blood vessels, nervous system, pancreas, liver, or with a predisposition to these diseases.

• A person does not receive energy from the outside, but uses his internal resources. This leads to exhaustion, nervous over excitation, increased fatigue, insomnia, irritability, nervous breakdowns, and depression [5].

• *Caffeine*, when consumed regularly, causes exhaustion and addiction. Excess *caffeine* causes increased urination, which removes salts from the body in large quantities. It also irritates the gastric mucosa and can lead to peptic ulcers of the stomach and duodenum, as well as gastritis.

- Excessive amounts of carbohydrates lead to excess weight and worsen dental health [5].
- The following are added to *energy drinks*: preservatives, acidity regulators, stabilizers, dyes, flavors and other unsafe food additives.

Comparative analysis shows that there are more negative qualities than positive ones. These benefits are short-term and have subsequent consequences.

Practical part

The survey was conducted among 1st year students of the Faculty of Medicine of the Bashkir State Medical University, 20 people answered the questions:

1. Do you drink *energy drinks*? Answered: Yes – 89 %, No – 11%
2. Do you know their composition? Yes-70 %, No-30 %
3. Do you use it often (more than two cans per week often)? Yes - 25%, No - 75%
4. Do you feel a “rush” of energy after drinking? Yes - 80%, No - 20%
5. Do you feel sleep or appetite disturbance after drinking *energy drinks*? Yes-30%, No-70%

Conclusion

89% of respondents drink *energy drinks*; this confirms the relevance of the toFig. Of these, 70% know the composition, but continue to drink in order to quickly cheer up. 25 % consume more than two cans a week - these students are at risk of becoming dependent on *caffeine*. The rest rarely, but even so they risk harming their body. The first noticeable side effects were felt by 30% of students.

Energy is not an endless resource; it needs to be replenished regularly, but it must be done correctly, without harming your health. Therefore, we will write some recommendations on how to help yourself:

- Try to normalize your sleep, work, and rest patterns
- Take up physical exercise
- For drinks, drink water, natural juices, fruit drinks
- Adhere to the principles of proper nutrition

In any case, whether to drink *energy drinks* or not is entirely your choice. Remember that without a varied diet and proper rest, few supplements will work.

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