

only in the first group, where children had only been instructed in oral hygiene practices.

**Conclusion.** The developed and implemented prophylactic and therapeutic complex, which includes the use of the toothpaste “New Pearl Chamomile + Calcium,” the “Complete” mouthwash by Splat, the gum balm “Forest Balm,” and the oral administration of the multivitamin–mineral preparation “Univit,” as well as an additional application of ozone therapy using the device “OzonyMed,” contributed to the improvement of oral hygiene in the treatment of children with chronic catarrhal gingivitis during the mixed dentition period.

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## FOOD ADDITIVE E171 AND ITS EFFECTS ON THE BODY, MODERN VIEWS ON ITS ROLE IN CAUSING VARIOUS PATHOLOGICAL PROCESSES

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**Relevance.** Titanium dioxide is widely used as a food coloring agent. This additive completely changes the organoleptic properties of the product and helps preserve it for longer. Other food colorings include titanium dioxide E171, iron oxide E172, gold E175, silver E174, silicon dioxide E551 and others.

Like other fine particulate food additives, titanium dioxide constitutes a significant portion of food products. It is commonly found in carbonated drinks, various colored sweets, packaged salty and fatty snacks, potato chips, paper–wrapped candies, baked goods, dairy products, and sausages. Titanium dioxide is actively used not only in the food industry but also in the pharmaceutical industry, personal hygiene products, and cosmetics as a whitening agent. Titanium dioxide is a substance that does not dissolve in water and is considered to be low in toxicity. In the body, titanium accumulates by binding with proteins. When titanium dioxide is consumed orally, it interacts with the aggressive environment of the stomach, significantly altering the properties of proteins and enzymes. [1]

In laboratory tests, when titanium dioxide was administered chronically (for 90 days) to rats, it was observed that their testicles were damaged, and there were

reductions in platelet counts, lymphocytes, hemoglobin levels, and immunoglobulin levels.

Other laboratory tests found that when titanium dioxide was administered at a dose of 10 mg/kg, it led to severe liver damage, apoptosis of nephron cells, and disruptions in immune regulation. [2]

**Research objectives.** study of the effect of the active substances contained in feed dyes on the cerebral hemispheres

**Research methods.** Study of the morphological characteristics of the frontal and occipital lobes of the cerebral hemispheres in normal laboratory conditions. Staining of microreparations by histochemical methods. 10 white-laboratory rats selectively taken .

They are divided into 2 groups. Separated :The control group, E 171 food additive accepted group.

**Results and its discussion.** Morphological characteristics of the frontal and occipital lobes of the cerebral hemispheres were studied in laboratory conditions.

For the first time, morphological changes in the gray matter of the frontal and occipital regions of the cerebral hemispheres had been detected in laboratory conditions under the influence of titanium dioxide, a food coloring: E171.

**Conclusion.** Titanium dioxide remains a major source of fine particulate additives, and the amount entering the body through food and pharmaceuticals is steadily increasing, highlighting the growing importance of studying its effects on the body.

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## ЭФФЕКТИВНОСТЬ КОМПЛЕКСНОЙ ТЕРАПИИ ПРИ ЯЗВЕННОЙ БОЛЕЗНИ

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**Актуальность.** Язвенная болезнь (ЯБ) желудка и двенадцатиперстной кишки остаётся одной из наиболее распространённых патологий желудочно-кишечного тракта. Обострения заболевания часто связаны с инфекцией *Helicobacter pylori*, что требует включения антибактериальной терапии [1]. Резистентные формы ЯБ, возникающие даже при использовании современных препаратов, подчёркивают необходимость поиска новых подходов. [2] Методы,