# THE IMPORTANCE OF TOOTHPASTES FOR TEETH Rybalkina M.A. (Republic of Kazakhstan) Email: Rybalkina563@scientifictext.ru

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Abstract: the article analyzes the meaning and types of toothpaste. Such as: therapeutic (for the treatment of stomatitis, inflammation of the gums, etc.), therapeutic and preventive (to eliminate provoking factors that can cause dental disease) and hygienic (to eliminate bad smell and fight dental deposits). The right choice of toothpaste, what you should pay attention to when buying toothpaste, what is not worth buying. The composition of the paste includes 11 chemical and about 5 therapeutic components that affect the teeth in different ways. For example, toothpaste contains substances such as fluorine and calcium carbonate, the combination of which will lead to the destruction of enamel, but individually, these substances are also useful for teeth. Toothpaste also contains useful natural ingredients, such as mint, sage, clay, echinacea and ginger. Two toothpastes and their composition are also given as an example. Based on this, a conclusion is drawn and a better toothpaste is indicated.

Keywords: toothpaste, paste, composition, disease.

# ЗНАЧЕНИЕ ЗУБНЫХ ПАСТ ДЛЯ ЗУБОВ Рыбалкина М.А. (Республика Казахстан)

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Аннотация: в статье анализируется значение и виды зубной пасты. Такие как: лечебные (для лечения стоматитов, воспаления дёсен и т.д.), лечебно-профилактические (для устранения провоцирующих факторов, способных вызвать заболевание зубов) и гигиенические (для устранения неприятного запаха и борьбы с зубными отложениями). Правильный выбор зубной пасты, на что стоит обращать внимание при покупке зубной пасты, что не стоит покупать. В состав пасты входят 11 химических и около 5 лечебных компонентов, которые по-разному влияют на зубы. Например, в зубную пасту входят такие вещества, как фтор и карбонат кальция, объединение которых приведёт к разрушению эмали, но по отдельности эти вещества так же полезны для зубов. Также в состав зубной пасты входят полезные натуральные компоненты, такие как: мята, шалфей, глина, эхинацея и имбирь. Также приводятся в пример две зубные пасты и их состав, исходя из этого делается вывод и указывается лучшая зубная паста. Ключевые слова: зубная паста, паста, состав, заболевание.

# The Importance of toothpastes for teeth

### Introduction:

Nowadays, a large number of people understand that beautiful white teeth are an element of modern culture, a symbol of health and prosperity. The main "dental problems" of a modern person are plaque and its consequences, caries, tartar, periodontal disease. One of the most effective and simple measures to prevent them is cleaning your teeth. This problem is most often solved by toothpaste.

Now on sale there are many varieties of toothpaste of Russian and foreign production. Which toothpaste protects our teeth more effectively? As a future dentist, I was interested in this problem, and for my work I chose the topic "The Importance of Toothpastes for Teeth". The object of the study will be different varieties of toothpaste.

#### Toothpaste and its types

Toothpaste is a necessary tool for oral hygiene, but is it really important which tube has taken root in your bathroom? Is not annoying television advertising just a means of promoting a particular brand of this product? After all, there were times when they cleaned their teeth with a special powder, and didn't do anything for quite a conditional price. So is not buying an expensive tool a waste?

1. Therapeutic. Such a tool contains special medicinal components that fight a specific pathology of the oral cavity. Medical toothpaste can be used in the treatment of candidiasis, to restore damaged enamel, to eliminate inflammation in the oral cavity, etc. To treat stomatitis, gum disease, periodontal disease, toothpastes containing herbal supplements, biologically active substances, vitamins, metabolic regulators are used .

2. Medical and preventive. It is used not so much for the treatment of pathological processes as for a preventive

purpose. The task of this group is to eliminate the provoking factors that can cause diseases of the teeth and periodontal tissue.

3. Hygienic. The most common representative in the assortment. It is she who is most often used. It is intended for hygienic cleaning, eliminating unpleasant odors and combating dental deposits, food residues, microbes that form plaque and tartar. For this purpose, their composition includes chalk, dicalcium phosphate, sodium metaphosphate, aluminum hydroxide, silicon dioxide, etc.

#### What is not worth buying?

If you strive for excellence and intensely whiten your teeth, buy safe pastes. It is undesirable to purchase funds with traumatic enamel compounds: aluminum oxide, chalk, calcium carbonate. Be careful with anti-inflammatory pastes. Containing chlorhexidine or triclosan, they can, with prolonged use, not only destroy pathogenic microbes, but also disrupt the normal microflora, leading to candidiasis.

#### How to choose what to look at?

When choosing the best hygienic paste, you should pay attention to the safety of the components that make up the toothpaste.

Toothpaste should contain fluoride, calcium and phosphorus. Fluoride is known to prevent tooth decay. However, it is worth noting that many fluorine compounds are toxic, so their content in toothpaste is strictly limited.

Toothpaste should not contain sugar, as it is harmful to the teeth. Therefore, xylitol is added to modern toothpastes - a sugar substitute that prevents the development of microorganisms. In addition, xylitol is recognized as a preventive measure against caries.

Not every toothpaste is safe. Most of them contain an abrasive substance that has a negative effect on the surface of the enamel. And now let's dwell on some of the substances contained in pastes.

The composition of a good paste for cleaning enamel, as a rule, includes:

Fluoride (fluorides) are useful components. Pastes containing fluoride or fluoride are now recommended for use not only by children, but also by adults, since fluoride strengthens teeth and reduces the risk of tooth decay. The percentage of fluoride in the paste relative to other elements should be from 0.1 to 0.6%. Children under 6 years old are advised to buy pasta with a lower fluoride content.

Calcium carbonate is an abrasive substance that effectively cleans the surface of enamel from bactericidal deposits. *Strontium Chloride and Nitrogen Potassium.* These elements should be included in the paste if you have sensitive teeth. In many adults after 35 years, as a result of frequent grinding of the teeth or too strong pressing on the gums during daily brushing, the gum line drops, leaving root sections on the surface. Naturally, then your teeth react very sharply to cold, hot and other irritants. Mentioned substances reduce the sensitivity of nerve endings. Within a few weeks of using the paste with strontium chloride and nitrogen potassium, the patient will feel relief and may switch to using regular paste.

# Important! The paste cannot simultaneously contain fluorine and calcium carbonate, since their combination will lead to the destruction of enamel.

The RDA level allows you to find out the amount of abrasive in the composition. When choosing, it is worth considering the sensitivity of the teeth, the intensity of the appearance of new deposits. The higher the RDA, the more effective the paste will cope with crystallized deposition. However, with sensitive enamel, the RDA level should not exceed 25 units!

Triclosan is an antibacterial substance that can act as an antibiotic. Such a drug destroys harmful bacteria in conjunction with beneficial substances. In this situation, the microflora of the oral cavity suffers, which leads to a variety of diseases.

Pyrophosphates - these substances are used to prevent the occurrence of plaque and tartar. Pyrophosphate pastes are good for everyone, not just people who have tartar. But do not forget that if you have already formed plaque or tartar, pastes will not relieve you of it, you should contact a specialist and undergo toothbrushing.

Soda and peroxide - are added to the paste one at a time or in combination. Do not have a therapeutic effect. They are used for more comfortable toothbrushing, as they leave a feeling of freshness and cleanliness in the oral cavity.

Lightening components - remove plaque caused by coffee, tobacco and some other substances, but cannot make your teeth brighter if your enamel color is yellow. Most of these substances have an abrasive structure, that is, they simply scrape away plaque from your teeth, so frequent use of pastes with brightening components can cause damage to the enamel. You can use a lightening paste once a day, and a regular one a day.

Sodium lauryl sulfate - the results of some studies show that this element can increase pain in stomatitis. But this information is not fully confirmed and needs further experimental research. But just in case, nevertheless, if you have stomatitis, then it is better to look for toothpaste without this component.

Foaming substance: it is lauryl sodium sulfate, it is a surfactant, it is also SLS. The most dangerous substance that makes up 90% of toothpastes is not fluorine, which has been talked about lately, but a foaming substance - sodium

lauryl sulfate. Most often, it is indicated by three Latin letters SLS or Cyrillic-surfactant. It is this substance, getting into the oral cavity, foams and destroys plaque from tooth enamel. This product is obtained by chemical synthesis of coconut oil. It is added to detergents for cars. Dentists do not hide the fact that pastes containing sodium lauryl sulfate are dangerous to health. Ophthalmologists also confirm the harm of toothpaste with SLS: after applying a paste containing sodium lauryl sulfate, vision deteriorates by 5%. Therefore, when choosing a toothpaste, pay attention to how it foams. It turns out that the less foam, the better the quality of the toothpaste. The inscription SLS free means that there is NO foaming substance in the paste. The erroneous opinion is that the most effective is the product that foam very well. Quality pastes do not contain SLS in their composition, since it harms the body.

#### Therapeutic toothpastes.

For various diseases of the oral cavity, the use of therapeutic toothpastes can have a positive effect. Since hygiene procedures are carried out twice a day, the components contained in the paste are regularly ingested, providing a local therapeutic effect. The choice of toothpaste depends on the pathology that has developed in the oral cavity. In case of gum disease and periodontal disease, multiple caries, enamel hypersensitivity, pastes are used that are specially designed to alleviate the condition of the patient.

With the development of gingivitis (inflammatory gum disease) or periodontitis (inflammation of periodontal tissues), the dentist usually prescribes a special paste along with conservative and surgical methods of treatment, the functions of which are to:

Reducing bleeding, relieving swelling, eliminating hyperemia or cyanosis, relief of pain.

It should be noted that anti-periodontal toothpastes can only eliminate the symptoms of the disease, and not cure the disease. Therefore, they are prescribed as an adjunct to dental treatment.

#### FIRST PLACE IN RATING E PASSED BY LACALUT

The German company Lacalut has developed two pastes that can be used for periodontal diseases Lacalut asset and Lacalut phytoformula. Consider the composition and advantages of each of them.

Lacalut phytoformula contains aluminum lactate, sodium fluoride and a complex of anti - inflammatory plant components (extracts from sage, St. John's wort, myrrh, ratan). Due to the astringent action of aluminum lactate, the paste perfectly suppresses bleeding, relieves inflammation with the help of plant components. The use of this remedy is recommended for gum inflammation (gingivitis) and as a continuation of treatment after applying Lacalut paste. Thanks to fluorine compounds, it can have a prophylactic anticariogenic effect.

Lacalut asset contains the antiseptic chlorhexidine, lactate and aluminum fluoride, as well as anti-inflammatory components - bisabolol, allantoin. It has anti-inflammatory and hemostatic effects after the first use. The fluorine compounds that make up the paste have a remineralizing effect. Most often, the paste is prescribed for 10-20 days as an addition to the course of treatment for periodontal disease. Continuous use of the paste is not recommended, since chlorhexidine is included in its composition. After the course of treatment, it is recommended to use the Lacalut phytoformula paste.

#### SECOND PLACE RATING - PASTS PARODOTAX.

There are two versions of Parodontax anti-periodontal paste - with and without fluoride. The recipe for this paste produced by the English company has not changed since the end of the nineteenth century. This is a completely natural product, which includes extracts from peppermint, echinacea, sage, chamomile, myrrh, rataniya. In addition to plant components, mineral salts and zinc citrate are included in the recipe. The product has anti - inflammatory, hemostatic, astringent and antibacterial effects and a salty taste. When combining gum pathologies with carious lesions, it is preferable to use Parodontax with fluoride.

#### Findings.

For the conclusion, I took two hygienic advertising toothpastes and two medical pastes, analyzed their composition and made a conclusion.

In 1806, William Colgate founded *William Colgate & Company* at Dutch Street in Manhattan . This company produces products such as soap, oral hygiene products, toothpastes and brushes, household cleaning products. Toothpaste *Colgate* contains in its composition substances such as calcium carbonate, water, sorbitol, sodium lauryl sulfate, hydrated silicon dioxide, flavor, sodium monofluorophosphate, cellulose gum, magnesium aluminum silicate, sodium carbonate, benzyl alcohol, saccharin, sodium bicarbonate, extract Propolis, Limonen.

*LACALUT* is a high-quality toothpaste from Germany, appeared in 1977 and today it is rightfully considered the leader in sales in pharmacies among the therapeutic and prophylactic means of oral hygiene. The unique aktiv formula contains: aluminum lactate - prevents inflammation and bleeding of the gums; aluminum fluoride - protects against caries; chlorhexidine - has an antiseptic effect.

Based on these data, it concluded that gigenicheskaya toothpaste *Colgate* contains sodium lauryl sulfate (surfactant that same foaming agent), so I can not recommend it. This substance is very dangerous, it can manifest a reaction of various antibiotics, which some people may have a serious allergy to. It is better to choose *Lacalut* paste, it contains

more useful substances, both in hygienic toothpastes and in therapeutic ones, and this justifies the price of the paste and the advertising that we see on our TVs. Since nowadays everyone achieves a Hollywood smile, this paste can give a similar effect without harming your teeth.

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