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PREVENTION OF ENAMEL EROSION

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Abstract: Tooth enamel is the hardest and most protective layer in the human body. It protects teeth from external harmful factors, including mechanical shock, microorganisms and chemicals. However, enamel can also weaken and break. In recent years, tooth enamel erosion has been increasing - this is the erosion of the tooth surface as a result of acidic exposure. Enamel erosion often develops unnoticed by patients, until pain and sensitivity appear. Therefore, its timely detection and prevention are very important.

Keywords: Enamel erosion, tooth enamel, acid, tooth, prevention, carbonated drinks, sensitivity, dental hygiene.

Enamel erosion is the chemical breakdown of tooth enamel under the influence of acid, without microorganisms. This process occurs with the loss of minerals in the enamel, especially the dissolution of calcium and phosphate ions. The normal pH of tooth enamel is approximately 7.1-7.4, and when the pH drops below 5.5, the dissolution process begins. Scientific studies show that excessive consumption of acidic products such as carbonated drinks, energy drinks, citrus fruits leads to demineralization of enamel. Also, the return of stomach acid into the mouth (gastroesophageal reflux disease or vomiting) also damages the enamel. Causes of enamel erosion: Exogenous factors (external causes): Carbonated drinks (pH 2.5-3.5) - the phosphorus and citric acid in them quickly erode the enamel; Energy drinks, fruit juices, especially citrus fruits such as lemons and oranges; Frequent and large consumption of acidic foods; Brushing teeth immediately after exposure to acid - this combines mechanical action and chemical action, further damaging the enamel.

Endogenous factors (internal causes): Repeated vomiting (bulimia) - stomach acid returns to the mouth, damaging the enamel; Gastroesophageal reflux disease (GERD) - the effect of stomach acid on the teeth; Lack of saliva (xerostomia) -8 saliva protects the tooth surface, its decrease weakens the enamel.

Symptoms of enamel erosion: Smoothing and dull appearance of the tooth surface; Changes in the shape of the teeth, thinning of the corners and edges; Sensitivity to cold and hot foods; Changes in tooth color - usually yellowing or loss of shine on a smooth surface; Pain usually appears in the later stages, so many people detect the disease late.

Measures to prevent enamel erosion: Change eating habits. Avoid or reduce consumption of carbonated drinks and energy drinks; Moderate consumption of citrus fruits and juices; Drinking beverages through a straw (tube) reduces the impact on the tooth surface; Waiting 30 minutes after eating before brushing your teeth, as the acid softens the enamel slightly; Eating foods rich in calcium and phosphorus (milk, cheese, yogurt) helps strengthen the enamel.

Proper dental hygiene. Use a soft or medium-hard toothbrush; Use fluoride toothpaste, as fluoride remineralizes and strengthens enamel; Brush your teeth gently, not forcefully; Avoid cleaning your teeth with hard abrasive pastes.

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Dental checkups and treatments. Visit your dentist every 6 months; Use enamel remineralizing gels and varnishes if necessary; Cover the tooth surface in severe cases (composite fillings, ceramic veneers).

General health checkups. Treat stomach diseases (GERD, gastritis); Treat psychological problems such as bulimia; Use saliva-stimulating agents (if necesssary)

Conclusion: Tooth enamel erosion is a common and widespread dental problem among patients. Early detection and prevention of this disease can prevent pain and tooth loss. Therefore, it is very important to reduce the consumption of acidic products, follow proper hygiene rules, and regularly undergo dental examinations.

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