

TYPES AND CLASSES OF CARIES ACCORDING TO BLACK

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Abstract: In this article, we looked at Black's types of caries classification and class types, Dentists use various classifications of caries to determine the degree of its development. One of the oldest such systems is the scale created by the American scientist, Green Black. With its help, doctors evaluate the condition of teeth with carious lesions and determine the method of treatment. Let's take a closer look at the features of this classification.

Key words: Caries, Classification, Classes, according, Step.

Classification of caries by Black

Caries is one of the most common problems in dentistry. It starts with small white spots that are initially almost invisible. In the future, it can develop into different types and stages. Different types of classification are used to describe pathology, systematize its diagnosis and treatment methods. At the end of the XIX century, a discovery was made in the field of dentistry, which subsequently influenced the approach to diagnosis and treatment. The American scientist, G. Black created a classification of carious lesions, which became the first in the world. He identified several classes that streamlined the treatment techniques. This system is still in use, but WHO has made minor changes. Initially, Black allocated 5 classes, but then the World Health Organization added another class.

The treatment of all diseases, including caries, depends on their properties and the location of the pathology focus. The application of the classification greatly facilitated this process. Black divided the carious cavities into groups. This helps to select the method of preparation and installation of the seal faster and more efficiently.

Classes of caries according to Black:

Grade 1 – it is characterized by lesions of depressions, grooves and dimples on the upper part of the chewing teeth (molars, premolars), canines and incisors. This problem may affect only part or the entire occlusal plane;

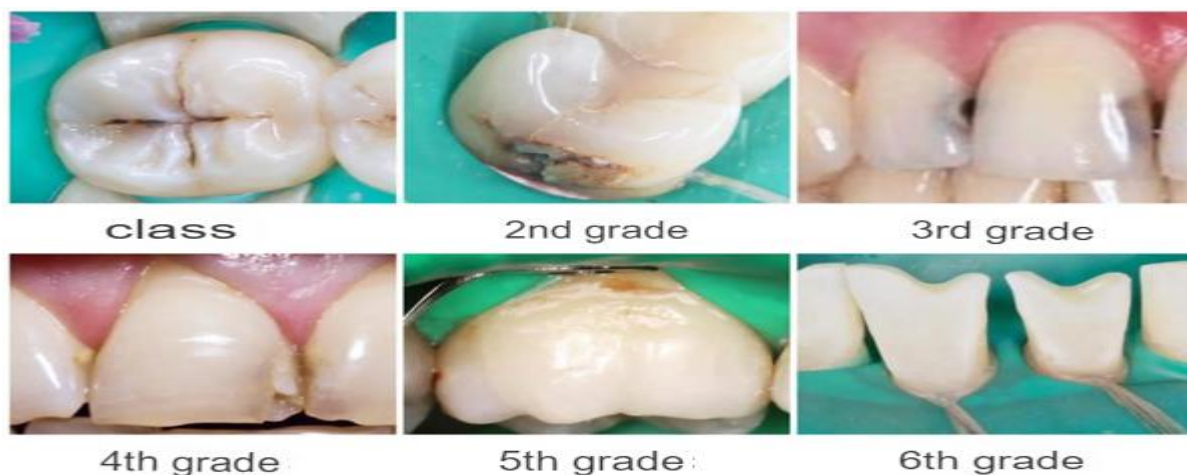
2nd grade, that is, the development of pathology in the contact space between the teeth. Most often, a similar problem occurs on the molars and premolars, on the distal and medial surfaces. It can affect the dental crown in several places at once. This type of dental disease is difficult to notice, so it can develop into serious damage. It is possible to identify a disease of the 2nd class only at a dental examination or with the help of CT;

Grade 3 – the development of caries between the front teeth (incisors and canines). Defective foci occur in the interdental space (medial and distal zones), without affecting the upper part of the crown. The defeat can be noticed independently. It looks like a small dark spot between the teeth;

Class 4 – carious process of the lateral surface, including the cutting ridge. Usually the pathology develops on the front teeth;

5th grade is a destructive process affecting the cervical region. It develops on the lingual and vestibular surfaces. Pathology can destroy all types of teeth.

The 6th grade of caries. This category includes the formation of carious foci on the cutting edges of molars, premolars, incisors and canines. The pathological process develops only at the upper edge.



The division of the carious lesion according to Black is carried out according to the location of the pathological focus. This system includes several groups. The first group is aimed exclusively at the location of the pathological process, without taking into account the stage and depth of the lesion. It includes:

fissure lesion – occurs on the chewing part. This type of caries is often found in children;

Fissure caries is one of the types of pathological destruction of dental tissues associated with the lesion of fissures. If we consider the anatomical structure of the teeth, then on top of each of them you can see grooves, or fissures. They are necessary for high-quality grinding of food. Incisors, canines, premolars and wisdom teeth are characterized by their own shapes of tubercles, since teeth have different chewing loads. Teeth with narrow, sinuous fissures suffer the most. Food residues are constantly accumulating here and pathogenic bacteria are showing increased activity.

interdental – can form on any tooth. The process proceeds unnoticeably, therefore it can lead to serious complications (destruction of dental tissue, severe pain);

atypical – lesion of the cutting edge of incisors and canines, tubercles of molars and premolars;

the cervical one is in the form of spots at the base of the crown part. It is easy to diagnose, as it is visible to the naked eye.

Caries is an infectious disease characterized by focal (point) destruction of enamel under the action of acids of microorganisms. At the same time, a cavity forms in the tooth, which grows over time. The disease is found all over the world and affects up to 95% of people.

The Black classification includes different types of carious lesions. According to the depth, pathology is divided into initial, superficial, medium and deep degrees:

1. At the initial stage, spots of a light or darkish hue appear. After their removal, remineralization is applied.

Our oral cavity is a habitat for many bacteria. Immune barriers restrain their reproduction, but when the body's defenses fail, pathogens begin to multiply uncontrollably. The acids they secrete destroy the enamel, washing out minerals from it. The first sign of a lack of minerals are chalky spots, hence the name.

2. The superficial degree is characterized by enamel damage, roughness and hypersensitivity to sour, sweet, salty, spicy, warm and cold. The treatment consists in grinding the dental surface and remineralization. Sometimes a carious lesion is treated and a seal is installed.

Superficial caries is a common problem that occurs in both adults and children. This dental disease is characterized by the gradual destruction of tooth enamel. However, superficial caries is not the most neglected form, since the destructive effect only reaches the dentine border.

3. In the middle stage, the enamel is destroyed down to the dentin. The process is accompanied by sharp pain. The doctor removes the carious tissue and performs a filling.
4. The deep degree affects the enamel and dentin. With untimely treatment, the pathology can develop into periodontitis or pulpitis.

Treatment of caries by Black The technique of eliminating carious lesions according to Black always includes dissection of the affected area. The process takes place in 5 steps: opening the cavity of the diseased tooth and removing the affected tissues; removal of tissues that may begin to deteriorate in the future; removal of infected and necrotized dentin; dental cavity treatment for proper and high-quality filling; polishing the edges of the installed seal and rough enamel.

Features of the treatment

The strategy of caries elimination implies mandatory preparation of the destroyed tooth area. Dr. Black has developed a sealing scheme that is still used in the 21st century:

Step 1. The doctor opens the carious cavity and removes the affected areas.

Step 2. Damaged tissues are removed to prevent their disease in the future.

Step 3. The infected and dying dentin in the living tooth is eliminated.

Step 4. The dental cavity is carefully treated for filling.

Step 5. Rough areas of enamel and the edges of the seal are sanded.

Caries treatment is possible at any stage. However, its duration and price directly depend on regular visits to the dentist. Early detection of pathology is a quick and inexpensive remedy.

Alternative caries typing systems

The definition of caries class by Black is a traditional classification, but it is no longer the only one. However, all systems are similar. The most popular one is topographic. It determines the type of pathology according to the depth of the lesion.

Another classification is based on the presence or absence of complications:

Uncomplicated caries — nerves and ligaments around the tooth are not affected.

Complicated is a neglected case of carious lesion, when soft tissues begin to break down. In this case, a complex complex treatment is carried out. It is difficult to find a person who has not experienced this disease. However, not everyone knows how multifaceted caries is. In the absence of symptoms, patients often come to the doctor when the lesion has gone too far.

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