

FILLING WITH COMPOSITES

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Aesthetic restoration is the final stage of caries treatment, associated with the restoration of a defect in tooth tissue with filling materials that correspond to them in terms of aesthetic, strength and biomechanical characteristics. Aesthetic restoration allows you to restore the integrity and functional value of the tooth, as well as restore or improve its aesthetic characteristics. In therapeutic dentistry, highly aesthetic light-curing composites are used for aesthetic restoration of teeth. Tooth restoration as a type of medical dental care must meet a number of requirements and solve several interrelated problems:

- treatment of diseases of the tooth and surrounding tissues, prevention of complications (recurrent caries, etc.);
- restoration (improvement) of the aesthetic parameters of the tooth;
- restoration of the functional value of the tooth;
- restoration of the biomechanical characteristics of the tooth.

We will look at Sandwich technique and Layered restoration technique.

The sandwich technique is considered as a complement to the adhesive technique. It is indicated for patients with a “problematic” oral cavity, severe caries, low level of hygiene, high CP rates, and a high frequency of recurrent caries. In addition, the sandwich technique is the method of choice

when filling defects in the area of the neck or root of a tooth, with large volumes of carious cavities, and when restoring pulpless teeth. This method should be preferred in case of non-carious lesions of hard tooth tissues, when enamel and dentin are pathologically changed and adhesive systems designed for the normal structure of tooth tissues do not provide reliable sealing of dentin and strong adhesion of the filling.

The sandwich technique is also indicated in cases where it is impossible to achieve complete drying of the carious cavity.

When filling using the sandwich technique, there are two options for applying a glass ionomer cement gasket: "Closed" sandwich - the lining does not reach the edges of the carious cavity and, after applying the composite, does not come into contact with the environment oral cavity.

"Open" sandwich - the lining covers any wall of the carious cavity, coming into contact with the oral environment after applying the composite. This technique is most often used for filling class 1 cavities, especially when the cavity is located subgingivally and it is impossible to completely dry it due to the penetration of gingival fluid into the cavity. In this case, the contact point must be restored with a composite.

Stages of filling teeth using the sandwich technique in one visit using double- and triple-curing hybrid glass ionomers.

1. Cleaning teeth from plaque.
2. Selection of the shade of the filling material.
3. Preparation of a carious cavity.
4. Isolation of the tooth from saliva.
5. Medicinal treatment and drying of the carious cavity.
6. Applying a base gasket.
7. Etching.
8. Application and polymerization of the adhesive system.
9. Introducing composite material into the cavity and curing it.
10. Final processing of the filling; postbonding is acceptable. According to indications, mineralization of the enamel areas adjacent to the filling is carried out.

The layered restoration technique is indicated primarily for filling large carious cavities of class I and especially class II according to Black. Its use is also effective for aesthetic restoration of anterior teeth.

Filling with layer restoration technique is carried out in accordance with the rules and principles of adhesive technique. There are differences only at the stage of applying the filling material. The restoration stages are similar, but differ in the creation of an initial super-adaptive layer and filling the cavity with a condensed composite

Thus, Sandwich technique and Layered restoration technique are important and their use depends on the choice of filling material.

Bibliography:

1. Betancourt D.E., Baldion P.A., Castellanos J.E. Resin-dentin bonding interface: Mechanisms of

degradation and strategies for stabilization of the hybrid layer. — Int J Biomater. — 2019.

2. Цырюльникова А.А., Крюкова А.В., Денисенко Л.Н. Стоматологический статус студентов/А.А. Цырюльникова, А.В. Крюкова, Л.Н. Денисенко//Успехи современного естествознания. -2014. -№ 6. -С. 120-121.

3. Хасханова Л. М., Разумова С.Н. Сравнительная характеристика адгезивной прочности адгезивных систем пятого поколения при модификации адгезивного протокола //Медицинский алфавит. № 2. 2022, С63-66.

4. Деревянченко С.П. и др. Роль социально-бытовых и медико-биологических факторов в развитии заболеваний полости рта у девочек разных народов // Волгоградский научно-медицинский журнал. 2015. № 1. С. 40-42.