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MANUFACTURE OF REMOVABLE DENTURES WITH A TWO-LAYER BASE

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ABOUT ARTICLE

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Abstract: In the case of unfavorable anatomical conditions on the part of prosthetic tissues (sharp bone protrusions, exostoses, a sharp ridge of the inner oblique line, an unyielding mucous membrane, etc.), the manufacture of removable prostheses with an elastic plastic lining is shown. The lining can be applied to the entire base or to certain areas of it. The bases of removable prostheses, consisting of two basic materials, are commonly called two-layer. Elastic polymer materials are used to make the lining in prostheses with a two-layer base. Modern elastic materials for double-layer bases of prostheses are divided by chemical composition into acrylic, silicone, fluoro-rubber, PVC and polyurethane. Depending on the nature of the initiation of the polymerization reaction, elastic materials of cold polymerization (self-hardening) and hot polymerization are isolated.

INTRODUCTION

Acrylic elastic plastics are technologically advanced and are firmly connected to a solid base layer. These materials are most similar in elasticity to the mucous membrane of the prosthetic bed. A significant disadvantage of acrylic plastics can be considered their relatively rapid aging, manifested by loss of elasticity. Silicone materials have high and stable elasticity, as well as

biocompatibility. The disadvantage of silicone materials is the unsatisfactory strength of the compound with a base of polymethylmethacrylate. However, the use of modern adhesives makes it possible to increase both the initial strength of the joint with the acrylic base and the adhesion strength after exposure to various liquids. Elastic plastics based on fluoro-rubbers combine well with acrylates, have good shock-absorbing properties superior to silicone and elastic acrylates. The disadvantage of fluoro-rubbers is the complexity and imperfection of the manufacturing technology. The production of materials from this group is expensive and environmentally hazardous.

RESULTS

Polyurethane-based plastics are characterized by greater elasticity than acrylates, high wear resistance and biological inertia. Due to the condensation polymerization mechanism, polyurethane contains practically no residual monomer. Clinical and clinical laboratory methods are used in the manufacture of prostheses with a two-layer basis. The clinical method involves the creation of an elastic lining using cold-cured materials directly in the patient's mouth. In Fig. 2 shows the sequence of manufacturing an elastic lining using a silicone material A-type cold curing UfiGel.

Clinical and laboratory methods of manufacturing prostheses with a two-layer basis involve performing work in a clinic and dental laboratory. Two methods of manufacturing an elastic lining are known: applying a soft lining to the finished prosthesis after polymerization of a rigid base plastic and a method of simultaneous packing of rigid and elastic plastics into a cuvette. As a rule, this method is used when working with elastic plastics of hot polymerization.

A high-tech Aerodentis dental mouthguard containing a vibrating silicone ball can eliminate the need to wear braces, writes The Daily Mail. The mouth guard should be worn only at night. At the same time, a ball presses on the teeth. The entire structure is connected by a tube to a device that supplies and sucks air from the ball. The ball expands and decreases in size several times per second. Studies have shown that vibration exposure helps to straighten teeth faster compared to constant pressure. With Aerodentis, you can get the perfect smile in just three months. With conventional braces, it takes 12-18 months, which are also not too aesthetic, cause pain, and affect speech.

Swedish scientists from Malmo University have suggested that such toothpastes can combat white spots formed after wearing braces. Fluorinated pastes contain 4 times more fluoride than conventional ones. Many studies have shown that 85% of people who have worn braces note the formation of different types of white enamel lesions. Fluoride-containing pastes have shown their effectiveness in combating 1/3 of cases of such lesions in children aged 11-16 years. None of the other pastes has been so effective

so far. Five dental clinics and more than 400 patients were involved in the study. Half of the participants were given high-fluoride pastes, while the other half were given regular toothpastes. All patients were photographed before and after the start of the study. The average duration of treatment was 20 months. The results of the study revealed that about 45% of people who used conventional pastes still noted white spots on the enamel, while the indicator for the same indicator for pastes with a high content of fluoride turned out to be 34.6%.

CONCLUSION

The import and sale of counterfeit medical products is a serious problem facing the dental industry. This should be remembered by specialists involved in the purchase of equipment. Experts warn that too cheap equipment can easily turn out to be fake. Unfortunately, nowadays a lot of counterfeit dental machines are sent to dental offices. As a result, dentists find themselves in an unenviable position, because in this case the responsibility for any "puncture" falls entirely on their shoulders. What can be done to reduce the risk of purchasing fake dental equipment? Experts advise all buyers and practitioners to carry out transactions very carefully and pay special attention to dental machines that are unreasonably cheap. In addition, you should avoid questionable suppliers.

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