

## **Effect of Mechanical and Chemical Preparation of Artificial Teeth and Acrylate Prosthetic Base**

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### **Abstract**

**Introduction:** Preparation of the basal area in acrylate artificial teeth is a very important factor in the quality of a dental prosthesis. It refers to the link between artificial teeth and acrylic denture base made of heat polymerized acrylic. The most common reason for failure of mobile prosthetic works is falling artificial teeth acrylate prosthetic base. The failure is due to the manner of connection between the base and artificial teeth. As the main factor which affects the level of retention is mechanical preparation of the basal area in acrylate teeth.

**Materials and Methods:** For realization of the setted aim 10 acrylic models were analysed. The research was designed to show the justification for the mechanical and chemical preparation of the basal area in acrylate artificial teeth, then using a light microscope to measure the size of the crack between acrylic artificial teeth and acrylic denture base. The research described two different techniques, the first one with chemical preparation and the second one with mechanical and chemical preparation, which justify the best technique of preparation.

**Results:** The results showed that there is no distance to the interspace occurs in models from the first and the second group. For the models of second group interspace between artificial teeth and acrylic base have bigger contact area, so there is better connection.

**Conclusion:** Combination of mechanical and chemical preparation of artificial teeth significantly affect the degree of physical connection and also provides greater contact surface with acrylate prosthetic base.

**Keywords:** arteficial teeth connection, heat polymerization, mechanical preparation, chemical preparation.