

**Javidjahromi Gh. M.**  
**CAVITY PREPARATION METHODS IN PEDIATRIC DENTISTRY**  
**Scientific advisor: Ph.D, Associate Professor Burak Zh. M.**  
*Department of Pediatric Dentistry*  
*Belarusian State Medical University, Minsk*

**Context.** Cavity preparation method choice is a critical aspect of pediatric dental care. For different types of cavities not always the classic methods of operation are optimal due to their limitations. In addition to possible pain, the noise and vibration of turbine and micromotor handles are often poorly perceived by children. Therefore, nowadays different and alternative cavity preparation methods are being used with different and specific cavities in pediatric dentistry. Recently, alternative carious cavity preparation techniques are becoming increasingly popular according to promised by manufacturers relative painlessness of these methods.

**Aim:** to analyze the existence methods of cavity preparation in pediatric dentistry and estimate the perception of kinetic method by children-patients.

**Materials and methods.** We have been analyzed 38 literature sources about modern methods of cavity preparation to summarize data on nowadays ways to remove carious enamel and dentin. To assess the children's reaction to the kinetic preparation, which is now gaining popularity and is positioned as relatively painless, we have interviewed 20 children between the ages of 6 and 12 years. All children had Rating 4 in accordance with Frankl Behavioral Rating Scale and subjected to the kinetic preparation (RONDOflex, KaVo) in one of private clinic of Minsk. Visual face scale was used to help children to express their feelings during the procedure. The diagnosis for each case was dentin caries and cavities were limited by outer or middle third of dentin.

**Results.** Based on the analysis of literature, in pediatric dentistry, the following methods of cavity preparation are now used in pediatric dentistry: classic machine and manual preparation, machine preparation using smart II Bur and carbide conventional bur, ultrasound, chemical, laser and kinetic preparation. We have obtained that nowadays due to different approaches to cavity preparation, various localization, depth and shape of cavities, differences in mineralization of enamel and dentin in individuals, specific patients, etc. each method has its own advantages and disadvantages.

16 (80.0%) patients from 20 rated the kinetic preparation as neutral and acceptable, 4 (20.0%) as unpleasant, but just one of them said that his feelings are so unpleasant that he cannot withstand the procedure without local anesthesia.

**Conclusions.** Modern technologies provide a pediatric dentist with a wide range of preparation methods with their features. The kinetic preparation can be considered as a method of choice in the work of a pediatric dentist thanks to positive perception by patients-children.