



**TOPIC: IMPROVEMENT OF MINIMALLY INVASIVE  
TREATMENT METHODS FOR PERMANENT TEETH CARIES IN  
CHILDREN DURING THE LATE MIXED DENTITION PERIOD**

Asia International University

Assistant of the Department of

Dentistry Rakhmatova D.S.

**Relevance:**

The late mixed dentition period (ages 9–12) is a critical stage in pediatric dentistry. Newly erupted permanent teeth have immature enamel, making them more susceptible to caries. Poor oral hygiene and dietary habits further increase the risk. Therefore, minimally invasive approaches are highly important.

**Literature Review:**

Modern dentistry emphasizes minimally invasive treatment strategies aimed at preserving healthy tooth structure. These include remineralization therapy, fissure sealants, and resin infiltration techniques.

**Aim:**

To improve early diagnosis and minimally invasive treatment of dental caries in permanent teeth in children.

**Objectives:**

- Early detection of initial caries lesions
- Assessment of remineralization therapy



- Evaluation of fissure sealants effectiveness
- Implementation of resin infiltration methods
- Improvement of preventive strategies

#### **Materials and Methods:**

Clinical studies were conducted among children aged 9–12 years. Diagnostic methods included visual examination and modern detection tools. Treatment methods included:

- Fluoride-based remineralization therapy
- Fissure sealants
- ICON resin infiltration

#### **Results:**

The use of minimally invasive methods significantly reduced caries progression. Remineralization strengthened enamel, sealants protected fissures, and infiltration halted early lesions.

#### **Discussion:**

The findings confirm the effectiveness of minimally invasive dentistry, especially when combined with early diagnosis and preventive care.

#### **Conclusion:**

Minimally invasive approaches should be widely implemented to improve oral health in children during the late mixed dentition period.