

## 985 | Salivary flow and capital capacity of saliva in preventing caries in early childhood

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**Background:** The objective is to conduct a literature review on the correlation of salivary indices with the prevalence of caries associated with children's diet and oral hygiene and how to use these data in the clinical environment

**Literature Review:** Many studies have reported that salivary flow and saliva composition have a protective effect against tooth decay. There is a strong relationship between salivary flow, quality of saliva and early caries in early childhood. In this context, saliva analysis is an option for diagnosing and monitoring the evolution of certain pathologies. Tests of salivary flow, buffer capacity of saliva can be associated with the risk of caries. Patients with changes in the buffer capacity of saliva, decreased salivary flow, are at a greater risk of developing oral problems, especially greater tooth decay activity.

**Conclusions:** Salivary analysis may be associated with general and intraoral clinical examination and is considered an important factor in the early diagnosis of caries and risk of caries

## 848 | Influence of preventive programs for reduction of DMFT index in 12 years old children in RNM on dental arch space changes

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**Background:** The aim of this study was to evaluate the effect after implementation of a set of preventive measures through the "National Strategy for prevention of oral diseases of children aged 0–14 years in Republic of North Macedonia (RNM) from 2008–2028" and the resulting need for orthodontic treatment in 12 years old Macedonian children.

**Methods:** This research was made in all 8 regions in RNM, including examined representatives from urban and rural areas equally.

Using the WHO methodology for preparing Oral health studies, 7169 children, born in the year of 2007, were examined

(33.3% from all the children in that generation). 3117 of them were boys and 3050 were girls.

The examinations were made in dental offices, by calibrated dentists-pedodontists, all employed in the public health sector.

The decay-missing-filled (DMF) index was used as an appropriate measure for the detection of dental caries where 12-year-old children were considered as target group. Impressions were taken from 100 children (50 boys and 50 girls) with premature tooth loss to analyze the space condition and dental arch space changes.

**Results:** After 11 years of implementation of preventive measures, evaluation showed impressive results – significant decrease of DMF index (from 6.88 to 2.43). Orthodontic analysis in the examined group with premature tooth loss showed greater extend of space loss and an increase in orthodontic treatment need.

**Conclusions:** The implementation of the National strategy for prevention of oral diseases in RNM was an effective approach for preventing caries-related premature tooth loss in 12 years old children, preserving relevant dental arch length.

## 914 | Vitamin D levels and dental caries in 7-year-old children in Porto, Portugal

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**Background:** Vitamin D deficiency has been associated with significant changes in dental structures. In children, it can induce enamel and dentin defects, which have been identified as risk factors for caries. This study aimed to assess the association between low serum 25-hydroxyvitamin D (25(OH) D) levels (75nmol/L) and the prevalence of caries in the permanent teeth and mixed dentition of 7-year-old children.