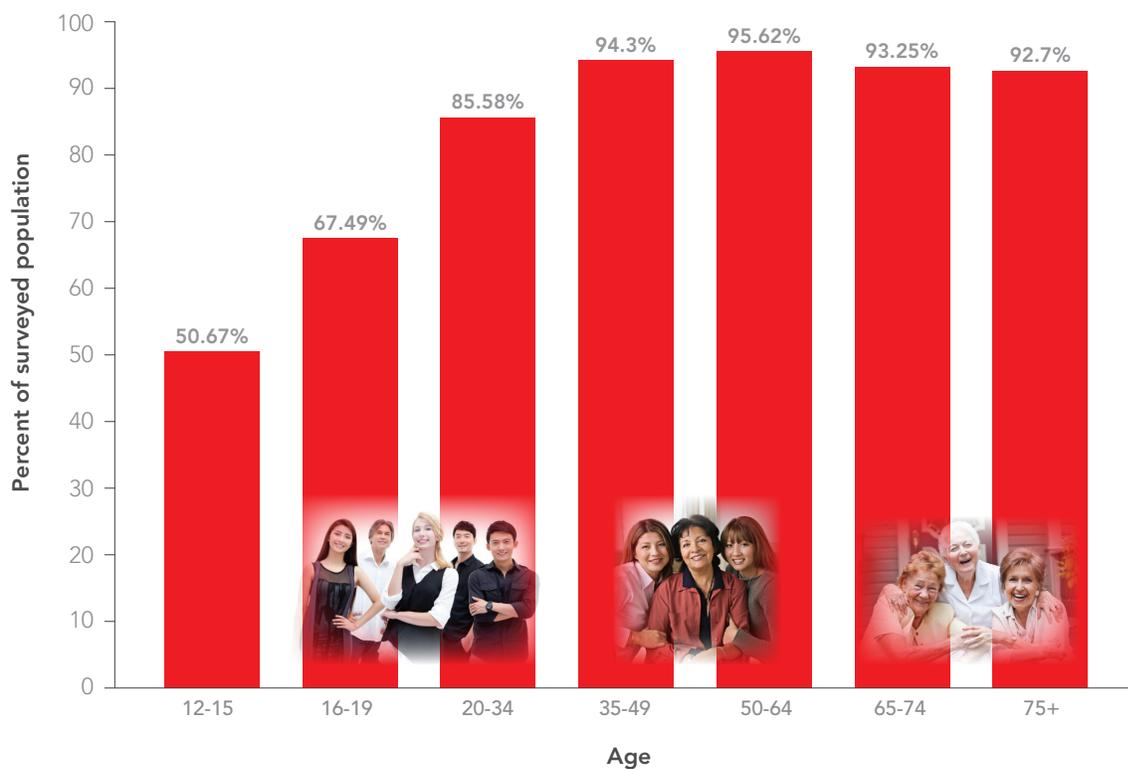


# Scientific Evidence Bulletin



**Dental Caries** is a continuum and if left unchecked this can produce cavitation of enamel and collateral damage to the dentin and pulp.<sup>1</sup> Coronal caries, recurrent caries and root caries are an increasing health problem especially for the elderly population.

## Caries Prevalence by Age Group



As measured by "decayed, missing and filled teeth" (DMFT)  
National Institute of Dental and Craniofacial Research, 2011. Data taken from National Health and Nutrition Examination Survey (NHANES, 1999-2004)

### Caries is a continuum that is dependent on:

- Biofilm
- Sugar: Ingestion and Frequency
- Acid from Bacteria: Demineralization
- Salivary Response: Remineralization
- Oral Hygiene and Preventative Control

Caries is a dynamic process, not an end point. Before cavitation occurs, this process may be arrested or reversed.<sup>2</sup>

# Scientific Evidence Bulletin



## 5,000ppm fluoridated toothpaste is significantly more effective for controlling root caries lesion progression and promoting remineralization than regular fluoride toothpaste.<sup>3</sup>

Fluoride has been shown to reduce the progression of carious lesions and aid remineralization. Regular tooth brushing with fluoridated toothpaste has therefore become a primary means for caries prevention.

**Clinical study:** Evaluated the effectiveness of tooth brushing with 5,000ppm toothpaste in controlling root caries in elderly, disabled, nursing home residents in Copenhagen, Denmark.

**Study design:** 8-month, randomized, controlled clinical trial.

**Products evaluated:**

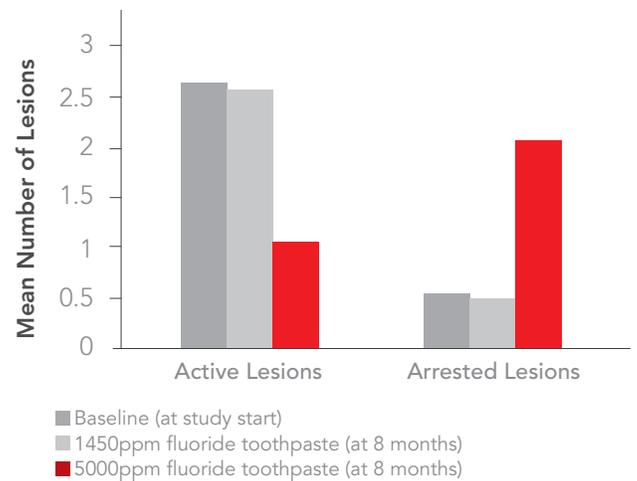
- Group 1: 5,000ppm fluoride toothpaste (Rx only), n=61
- Group 2: 1,450ppm fluoride toothpaste, n=64

**Method:** 125 elderly, disabled, nursing home residents completed the study.

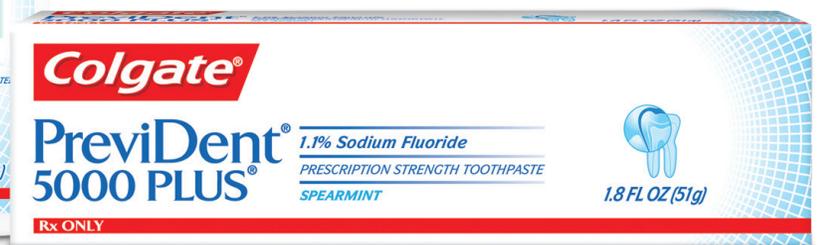
- The subjects had their teeth brushed by nursing staff twice a day.
- The activity (arrested or active) of root caries lesions was evaluated at baseline and after 8 months based on their texture, contour, location and color by a calibrated examiner.

**Results:** The subjects using 5,000ppm toothpaste had significantly more arrested lesions after 8 months compared to a control group that used a 1,450 fluoride toothpaste. Additionally, subjects in the 1,450ppm fluoride toothpaste group maintained significantly more active lesions after 8 months.

### Change in lesions from baseline over 8 months<sup>3</sup>



### Colgate® PreviDent® 5000ppm Products (Rx only) 1.1% Sodium Fluoride Toothpaste



1. Pitts NB, Stamm JW. International Consensus Workshop on Caries Clinical Trials (ICW-CCT)--final consensus statements: agreeing where the evidence leads. J Dent Res. 2004;83 Spec No C:C125-8. 2. Cummins D. Dental caries: a disease which remains a public health concern in the 21st century--the exploration of a breakthrough technology for caries prevention. J Clin Dent. 2013;24 Spec no A:A1-14. 3. Ekstrand KR, Poulsen JE, Hede B, Twetman S, Qvist V, Ellwood RP. A randomized clinical trial of the anti-caries efficacy of 5,000 compared to 1,450 ppm fluoridated toothpaste on root caries lesions in elderly disabled nursing home residents. Caries Res. 2013;47(5):391-8.