

ORANUCH JAINKITTIVONG : A SCANNING ELECTRON MICROSCOP
STUDY OF SODIUM FLUORIDE MOUTH RINSE EFFECT ON DECALCIFI
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The objective of This study was to investigate the effect of NaF mouth rinse on decalcified enamel and to compare the effects of 0.2, 0.05 and 0.002 % NaF solutions for enamel remineralization by using of SEM and X-ray microanalysis for measurements of calcium and phosphorus on the enamel surface.

This study indicated that 0.2 % NaF would tend to form CaF_2 deposits on the enamel surface which may serve as a reservoir of fluoride for remineralization by changing apatite into fluorapatite subsequently. While remineralizing solution of 0.05 and 0.002 % NaF would tend to accelerate remineralization directly by forming apatite rather than CaF_2 . The presence of fluoride would promote remineralization by transforming apatite into fluorapatite which is more stable, so that softened enamel could be rehardened. The phenomenon could explain the clinical change of the white spot lesion by gradually remineralize and even disappear. Thus, daily home use of 0.2 % NaF mouth rinse was recommended for the caries-high risk orthodontic patients to prevent demineralization in addition to regular tooth brushing.

The mean, standard deviation, coefficient of variation, One-way analysis of variation and Scheffe method of multiple comparison procedure were calculated for all measurements, taking at .05 significant level.