## The Comparison of pH Saliva before and after Brushing Teeth Using Tooth Paste Containing Betel Leaf Extracts

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**Abstract :** Mechanical brushing can help control plaque and is the first step to control dental caries. The type of toothpaste used is one of the contributing factors in it since the benefits of toothpaste are to reduce plaque formation and strengthen the teeth against dental caries, clean and polish tooth surfaces, eliminate or reduce bad breath, give a fresh taste to the mouth and maintain gingival health. Betel leaf toothpaste has the ability to inhibit the Streptococcus mutans bacteria that can cause the increase of pH saliva. Betel leaf extracts can increase the pH saliva because betel leaf has an anti bacterial characteristic against Streptococcus mutans so that pH saliva increases. This study aims to see the difference between pH saliva before and after brushing teeth with toothpaste containing betel leaf extracts. This type of research is pre-experimental using One Group Pretest-Posttest Design. This study was conducted on 32 subjects taken randomly from the representatives of students aged 11-12 years old in SD Pesanggrahan 03. The result of statistic test using non parametric test showed a value of 0.000. The resulted value being smaller than 0.05 (p < 0.05) means there is a significant salivary pH difference before and after teeth brushing using toothpaste containing betel leaf. The conclusion of this study showed an increase in salivary pH after teeth brushing with toothpaste containing betel leaves extracts in children aged 11-12 years old.

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Keywords : pH saliva, brushing teeth, tooth paste, betel leaves extracts

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