

**EFFECTIVENESS OF
CURVED BRISTLE TOOTHBRUSH
AND
STRAIGHT BRISTLE TOOTHBRUSHES
FOR PLAQUE CONTROL
(A COMPARATIVE CLINICAL STUDY)**

Dr. Vijaykumar Chava

Dept. of Periodontics

S.D.M. College of Dental Sciences and Hospital
DHARWAD

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The effect of plaque on periodontium plays a vital role in initiation and progression of periodontal disease.^{14,47,28} Bacterial plaque initiates an inflammatory process in the supporting structures of the teeth, which if allowed to continue ultimately leads to the loss of teeth. The magnitude of these problems are reflected in U.S. Public Health Service surveys which shows that 75% of all dentulous patients are affected by periodontal disease. In addition another 20% of people are now edentulous, primarily due to the ravages of periodontal disease.^{25,17} Many clinical studies clearly indicate that the major deposit of plaque forms in stagnation areas such as the approximal areas, gingival margins and defects in the tooth. These areas are protected from the natural cleaning mechanisms of the mouth, such as the frictional forces from the diet and from oral tissues. These areas are more prone to disease as they are relatively inaccessible leading to some disturbances over time and contributes to the dental disease^{18,73,28}.

A primary technique for the control and prevention of periodontal disease is the removal of bacterial plaque. There are a number of ways to eliminate plaque and they include chemical and mechanical methods.¹⁴

Much work has concentrated on devising toothpastes and mouth wash preparations to facilitate tooth cleaning. Some of the tested plaque reducing agents include, chlorhexidine, quaternary ammonium and phenolic compounds, antibiotics, stannous fluoride, enzymes and sanguinarine. The clinical efficacy of anti-tartar agents have been demonstrated in several studies. However, they only act as adjuncts and studies are needed to determine how safe and efficacious they are for long term use. Till date literature has shown that mechanical plaque control with the brush and some interdental aids are considered safest and best for removal of bacterial plaque.¹⁴

There is enough evidence to show that the role of mechanical methods is noteworthy. While considering the merits of mechanical methods literature has also pointed out the important role of tooth brush and tooth brushing. Tooth brushing is the most widely used form of oral hygiene method and enjoys a high degree of social acceptability. In industrialized countries 80% to 90% of the population brush their teeth once or two times a