

Toothbrushes require patient-specific instructions on thoroughness, duration, frequency, method, and force to achieve an effective technique and adherence. Also, when giving instruction the dentist considers patient characteristics such as risk and susceptibility to disease, dexterity, personal values, and preferences. In addition, communication should be appropriate to the patient's (caregiver's) age, language, educational level, culture, learning style, and readiness to adopt new behaviors.

Regardless of the toothbrushing method, dentist advise the patient to clean the mouth and tongue thoroughly using a systematic approach. Patients also need to understand the link among oral biofilm, oral and systemic diseases, and the importance of controlling plaque and inflammation.

Findings from gingival, periodontal, and dental assessments are reviewed with the patient and correlated with the presence of oral biofilm. Suggestions for improved technique in these areas help patients enhance effectiveness of biofilm removal. Quantitative plaque, gingivitis, and bleeding indices are used to improve client understanding, monitor self-care, motivate positive behaviors, and measure outcomes of care.

Toothbrushing Duration and Frequency

Dentist teach patients to brush thoroughly for an adequate period of time for efficient and effective biofilm removal. There are many possibilities for sequencing, but the individual should be encouraged to select a logical sequence and to use it consistently to avoid omission of any area. This concept is particularly important to instill early in children.

Research findings suggest the importance of brushing time. The recommended duration often is 2 minutes, and some models of power toothbrushes have 2-minute timers to encourage adherence. The average brushing time is 1 minute or less, but evidence indicates that, as brushing times increase, efficacy also increases. Different teaching strategies can be used to encourage longer toothbrushing such as counting strokes before proceeding to the next area of the mouth or using a timer or a small hourglass.

Toothbrushing Force (Pressure)

Most literature on force applied during toothbrushing has focused on its association with damaging soft tissue (gingival abrasion and recession) and hard tissue (dental abrasion), and fewer researchers have examined the effect of force on plaque reduction. Earlier concerns about excessive force leading to tissue damage with power toothbrushes have not been substantiated. Some power toothbrush designs are equipped with indicators or automatic shut-offs when excessive force is applied to the tooth surface, and some manual toothbrush designs incorporate a flexible shaft to contribute to improved safety. This technologic improvement is important because patients are unable to perceive accurately the pressure used. Some clinicians suggest that clients use a fingertip grasp instead of a palm grasp to reduce force during brushing. Evaluating if a patient is exerting excessive toothbrushing force is challenging because of the multifactorial etiology of soft- and hard-tissue lesions. The dentist makes patient recommendations based on specific patient assessment findings.

According to the direction of brushing stroke TOOTHBRUSHING TECHNIQUES divided:

- i. Vertical (Leonard's method).
- ii. Horizontal.
- iii. Roll technique (Modified Stillman / rolling stroke).
- iv. Vibrating technique (Charter's, Stillman, and Bass).
- v. Circular technique (Fones method).
- vi. Physiological technique (Smiths method).
- vii. Scrub brush method.

Requirement of a Satisfactory Method of Tooth Brushing

1. The technique should clean all tooth surfaces specially the area of gingival crevice and the interdental region.
2. The movement of brush should not injure the soft or hard tissues. Certain methods, e.g. vertical and horizontal scrubbing methods can produce gingival recession and tooth abrasion.
3. The technique should be simple to use and easy to learn.
4. The method must be well organized so that, each part of the dentition is brushed in turn and no area over looked.

Correct tooth brushing according to the KAI-method

The abbreviation "KAI" should remind you to brush all sections of your teeth. The individual letters stand for:

K – Kauflächen (chewing surfaces): First, the chewing surfaces of the teeth need to be brushed from left to right or vice versa in gentle circular motions.

A – Außenflächen (exterior surfaces): Afterwards, it's the turn of the teeth's exterior surfaces. The circular motion should be take place from red to white, which means from the gum to the tooth.

I – Innenflächen (interior surfaces): In the end, the interior surfaces of the teeth need to be brushed. To reach those more easily, the toothbrush can also be held vertically.



THE BASS METHOD: SULCULAR BRUSHING

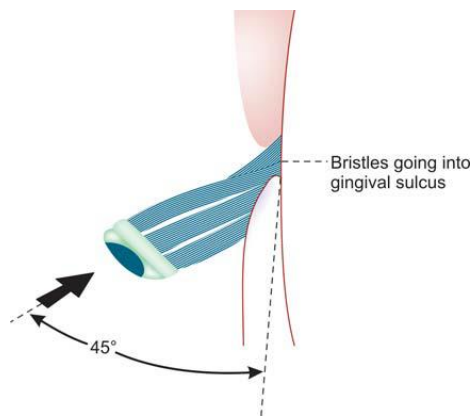
It is widely accepted and particularly useful in removing plaque not only at the gingival margin, but also subgingivally.

Indications

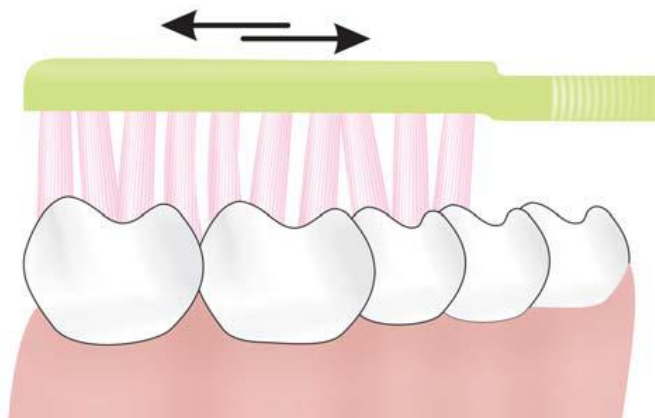
1. For plaque removal adjacent to and directly beneath the gingival margin in all individuals.
2. Particularly useful in open interproximal areas, cervical areas beneath the height of contour of the enamel and exposed root surfaces.
3. Postperiodontal surgery.

Procedure

The head of the brush is positioned in an oblique direction towards the apex, in order to introduce the bristles into the gingival sulcus. The bristles are about 45 degrees to the axis of the teeth.



The brush is pressed towards the gingival and moved with a small circular motion so that the bristles go into the crevice. 20 strokes are completed in the same position, three teeth at a time. For occlusal surface cleaning, bristles are pressed firmly into the pits and fissures and activate the brush into 20 short back and forth strokes.



To reach the lingual surface of anterior teeth, the brush is inserted vertically. The heel of the brush is pressed into the gingival sulci and proximal surface at a 45 degree angle to the long axis of the tooth. The brush is then activated.

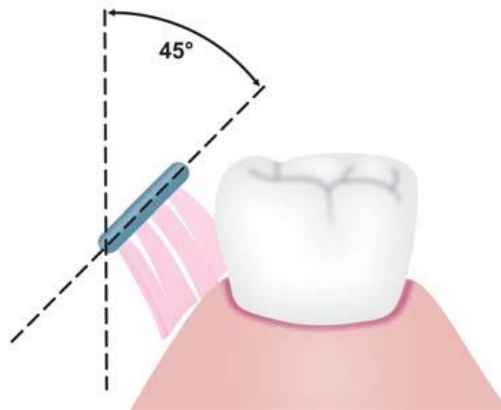
STILLMAN'S METHOD

Indications

As the bristle ends are not directed into sulcus, this method can be recommended for individuals with progressive gingival recession.

Technique

This method was originally developed to provide gingival stimulation. The brush is positioned with bristles inclined at a 45 degree angle to the long axis of the tooth, with the bristles placed partly on the gingiva and partly on the cervical portion of the tooth (Fig. 26.14).



The strokes are activated in a short back and forth (vibratory) motion, with slight pressure to stimulate the gingiva. Approximately 5 to 10 strokes are completed in each region, and the brush is moved to the next area. Brush placement is vertical on the anterior lingual surfaces and the heel of the brush is used.

CIRCULAR: THE FONES METHOD

This method may be recommended as an easy to learn technique for young children.

Indication. Young children with primary teeth; otherwise not recommended.

Technique. The brush is placed inside the mouth. With the teeth closed and brush tips contacting the gingiva over the last maxillary molar, bristles are activated in circular motion that sweeps from the maxillary gingiva to the mandibular gingiva.

Disadvantage. Possible damage to gingiva.

Pachomov's standard method of brushing teeth.

The dental row is conventionally divided into 6 segments: two frontal (incisors, canines), premolars, right and left molars. Cleaning of teeth and gums start from the vestibular side of the right molars on the upper jaw, consistently moving from segment to segment, then clean the chewing surface of the teeth and finish cleaning on the palatal surface. In the same sequence the teeth on the lower jaw are cleaned.

When cleaning the cheek and lingual (on the lower jaw), palatal (on the upper jaw) surfaces of large and small chewing teeth, the working part of the toothbrush is placed at a 45° angle to the tooth and the brush is moved from the gums to the tooth tips, simultaneously removing plaque from teeth and gums.

The chewing surfaces of molars and premolars are cleaned by bristles directed perpendicular to the occlusal surface - rotating movements with horizontal movements.

When cleaning the palatal and lingual incisors the handle is parallel to the axis of the teeth.

Finish brushing all segments in a circular motion, gripping the gingiva.

Each segment is cleaned with 10 to 15 brush strokes on each surface.

Brushing time is 3.5-4 minutes.

Toothbrushing Methods and Indications for Use

Method	Technique	Indications
Bass (sulcular)	Filaments are directed apically at a 45-degree angle to the long axis of the tooth; gentle force is applied to insert bristles into sulcus; use gentle but firm vibratory strokes without removing filament ends from sulcus.	Sulcular cleansing Periodontal health Periodontal disease Periodontal maintenance
Stillman	Filaments are directed apically and angled similar to Bass method; filaments are placed partly on cervical portion of teeth and partly on adjacent gingiva; short back-and-forth vibratory strokes are employed, and the brush head is moved occlusally with light pressure.	Progressive gingival recession; gingival stimulation
Charter	Filaments are directed toward the crown of the tooth; filaments are placed at the gingival margin and angled 45 degrees to the long axis of the tooth; short back-and-forth vibratory strokes are used for activation. (Distinguished from the Bass and Stillman methods in that the bristles are directed away from the gingiva towards the occlusal or incisal edge.)	Orthodontics Temporary cleaning of surgical sites Fixed prosthetic appliances
Roll stroke	Filaments are directed apically and rolled occlusally in a vertical motion.	Used in conjunction with Bass, Stillman, and Charter methods
Modified Bass, Stillman, and Charter methods	Add a roll stroke; roll tufts occlusally in a vertical motion after cervical area is cleaned by prescribed method.	Cleaning of entire facial and lingual surfaces
Fones	Filaments are activated in a circular motion.	Young children with primary teeth; otherwise not recommended

