Factors in Toothbrushing Effectiveness

A. Sequence
   1. A methodical, systematic approach will minimize the chance of omitting an area
   2. Brush by starting overlapping strokes at the facial aspect of the maxillary right or left and continue around the arch to the opposite side; switch to the lingual aspect and begin working back towards the starting side; use the same pattern for the mandible then brush the occlusal surfaces-each brush method should overlap previous one for thorough coverage
   3. Can encourage the patient to begin brushing in area of greatest need (area most frequently missed or areas most difficult to brush such as the right side for right handed, left side for left handed brusher)
   4. **Can suggest sequence be varied slightly so not always starting in same area to avoid always brushing same area last when time may be limited or rushed

B. Duration or time
   1. Each time the brush is moved, the time spent in an area should be monitored by counting strokes or seconds
   2. Stroke counting is more exact since it is linked to patient needs and the specific brushing method used-
   3. If patient is watching the clock or timer- 3-4 mins. is recommended

Many years ADA recommended brush after every meal now modified to “brush regularly”
- Studies show average person only brushes 1 minute!
- Thorough tooth brushing requires a different amount of time for each individual depending on other factors (plaque accumulation, psychomotor skills, adequacy of food clearance, etc.)
Most often suggest 6 strokes in each area, counting to 10 slowly or using a timer (3-4 mins); a combination of counting and watching time is best; overlap each area
- Some brushes have built in timers
- One set rule does not apply- complete removal of biofilm every day important- not the # of times brushed; often 2 times + interdental cleaning per day- especially brushing before bed

C. Frequency
   1. Frequency should be increased when gingival or periodontal conditions warrant it or when caries susceptibility or activity is high
   2. Brushing will remove residual sucrose as well as biofilm and is one method for self-application of topical fluoride
   3. Hard to apply one set rule for everyone- must be individualized and place emphasis on “thorough” removal rather than # of times
D. Skill level

1. Careful attention should be given to evaluating skill development in all components of brush manipulation, including grasp, placement, activation, wrist movement, and amount of pressure applied
2. Control of brush placement and motion is essential for effectiveness
3. Consider the grasp—should be palm grasp, firm but comfortable being very sensitive to the amount of pressure being placed

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**Tongue brushing**

- Brushing tongue and palate helps reduce the debris, plaque, and number of oral microorganisms
- Tongue cleansing should be done with a toothbrush or other tongue-cleaning device
- Place side of toothbrush near the middle of the tongue, with bristles pointed toward the throat sweep forward; repeat 3-4 times over area—do not scrub
- Clean the palate with a cleansing sweep also
- A dentifrice may also be used
- Fissured tongues trap the most debris/halitosis

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**Evaluating Current Toothbrushing Habits**

If you have the time and the facilities, it is best to allow the patient to **brush as they normally would at the sink** and evaluate the following:

A. How long did they brush?

B. Where did they start brushing?

C. In what direction did the patient proceed?

D. Did the patient spend more time on the upper or lower? Right or left side?

E. Are there any areas where the patient appears to have difficulty?

F. Does the patient appear to jump around the mouth with the toothbrush or brush in a systematic pattern?

G. What toothbrushing stroke/method did the patient use?

H. At what angulation did the bristles of the brush go in?
Then disclose the patient and evaluate what areas they missed. Show the patient with a mirror and discuss. Once you have given instruction, have the patient demonstrate it back to you- so you can reinforce anything they did not understand.

****Procedure for OUR clinic*****

In our clinic, due to lack of enough sinks, you will:

1. ask the patient if they have brushed
2. explain disclosing
3. disclose following instructions given previously
4. record results

**Then, sit the patient up, hold the mirror and ask the patient to demonstrate their brushing- do not disturb them while they are showing you. Always have the patients demonstrate to you **before you give any alterations** (otherwise- how do you know if they need it?).

Now give your recommendations- compliment the patient on what they are doing right! Reinforce positive skills- don’t belittle. Break recommendations over a period of many appointments- do not give “all at once” and overwhelm.

**Role-play so that you will feel comfortable with instructions!**

**Power toothbrushes**

**Power-tooth brushes**
- Also known as automatic, mechanical, power assisted or electric
- Must research has been done to show effectiveness & many have received the ADA seal
- Effectiveness most noticeable in patients who have not had proper manual tooth brushing instruction
- Heads are more compact and usually removable; handles are larger than manual- check weight

**Basic Head Pattern:**
- Rotational
- Counter-rotational
- Oscillating *Also sonic
- Pulsating
- Cradle or twist
- Side-to-side
- Translating
- Combination

**Speeds:**
- Vary from 3,800-40,000 movements per minute

**Power Source:**
- Direct
- Replaceable batteries
- Rechargeable
- Disposable
- Switches

**Purposes and Indications:**
- Powered toothbrushes have been developed to facilitate mechanical removal of biofilm and food debris for all patients
- All the general objectives that apply to the use of manual toothbrushes can be applied to powered toothbrushes
- *They may be especially helpful for people who lack the manual dexterity needed to handle a manual toothbrush*

**Special Uses:**
With instruction and supervision, a powered toothbrush may be a special benefit for a patient with plaque retentive areas or devices and with patients with disabilities

Examples:
1. Ortho
2. Prosthodontics
3. Children
4. Geriatric
5. Poor dexterity
6. Low motivation
7. Dental implants
8. Disabilities
9. Caregiver
10. Patients who are prone to stain
11. Aggressive brushers

**Methods for Use:**
1. Select correct brush
2. Select dentifrice with minimum abrasiveness
3. Place small amount on brush (some recommend no tp)
4. Position on tooth before activating
5. Hold in one location for a period of time
6. Vary brush position for each tooth surface
7. Turn brush to reach interproximal surfaces
8. Angulate to access crowded or rotated teeth
9. Retract lips with fingers of other hand to give better access and visibility
10. Modify brush positions where interdental papillae are missing
11. Monitor pressure
12. Replace brush as necessary

Most importantly- *Follow manufacture’s instructions (they do vary)*- have patient bring their tb in and demonstrate in the patient’s mouth how to properly reach all areas.

Taken from Wilkins Texts and Mosby’s Comprehensive Review