

Plaque Index & Oral Physiotherapy

- Oral physiotherapy
- Plaque index and procedure
- Demo of Modified Bass and Occlusal manual brushing techniques
- Demo of Spool and Circle flossing techniques

*Other brushing techniques and interdental aids discussed in lecture



Lesson
Objectives

Oral Physiotherapy

Definition: the use of a toothbrush, interdental stimulator, floss, irrigating device, or other adjunctive aid to maintain oral health.

<https://medicaldictionary.thefreedictionary.com>

The questions we need to find answers to are:

1. Is the patient using any physiotherapeutic aids?
2. What exactly?
3. How often?
4. How efficient are your patients in using physiotherapeutic aids?

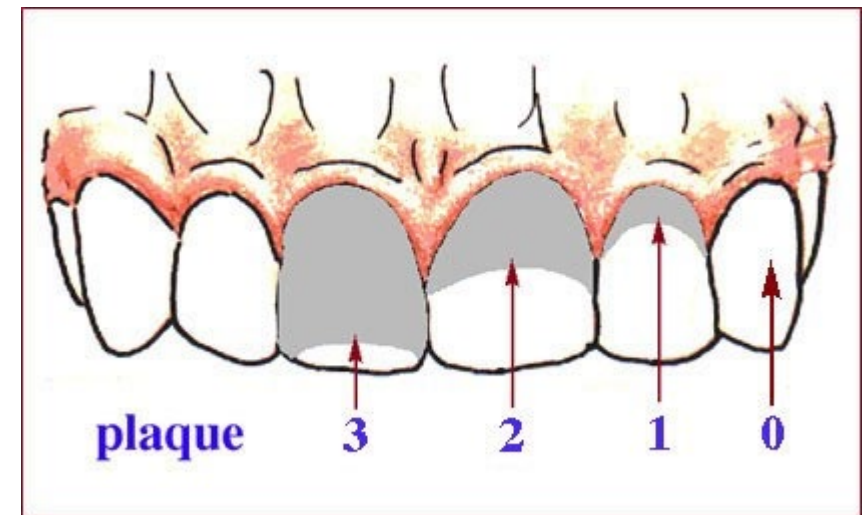
How will we know the answers to those questions?

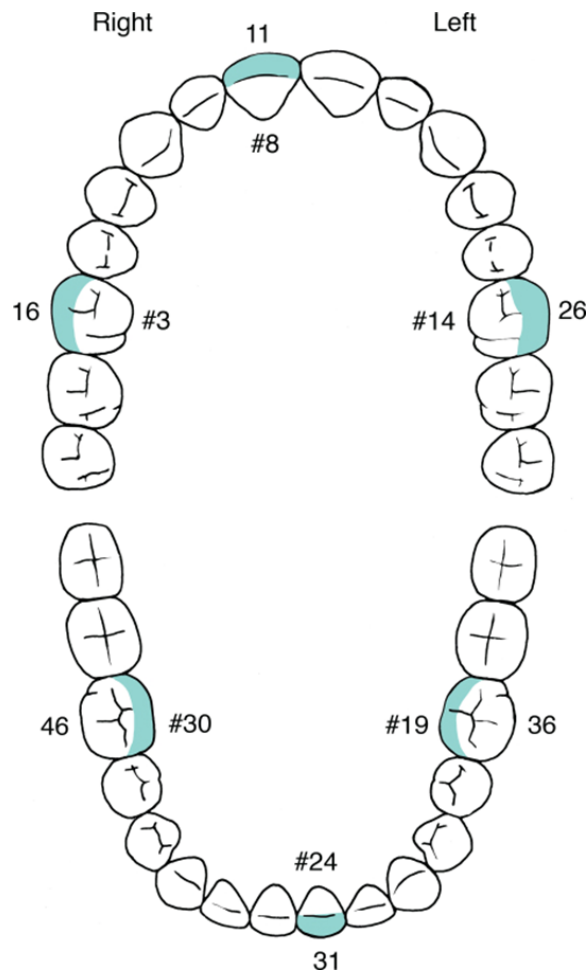
- Patient interview - **subjective data**

What is your homecare routine? How often do you brush? What type of brush do you use? Do you floss? How frequently? Do you use mouthwash?

- Performing a plaque index (PI) – **objective data**

Use of disclosing solution to make biofilm visible





The index used at NYCCT is Plaque Index (PI) - part of OHI-S

- Oral debris is the soft foreign matter on the surface of the teeth that consists of biofilm, materia alba, and food debris.
- Purpose: to estimate oral cleanliness by estimating the tooth surface covered with debris.
- 6 teeth are selected. Please note which surfaces need to be evaluated. Substitution should be made if a tooth is missing or can not be inspected.

Procedure

- Open disclosing gel and place 2-3 drops into a disposable dappen dish
- Apply to all teeth with a q-tip
- Ask the patient to rinse and expectorate
- Examine specific tooth surfaces for the amount of plaque present and record the score (0-3) in the appropriate space provided. *See scoring criteria on the next slide.*
- Add all the scores together and divide by the number of surfaces examined (6)
- Record score and interview patient about self-reported OH.



Tri Plaque ID Gel

Three tone plaque disclosing
gel



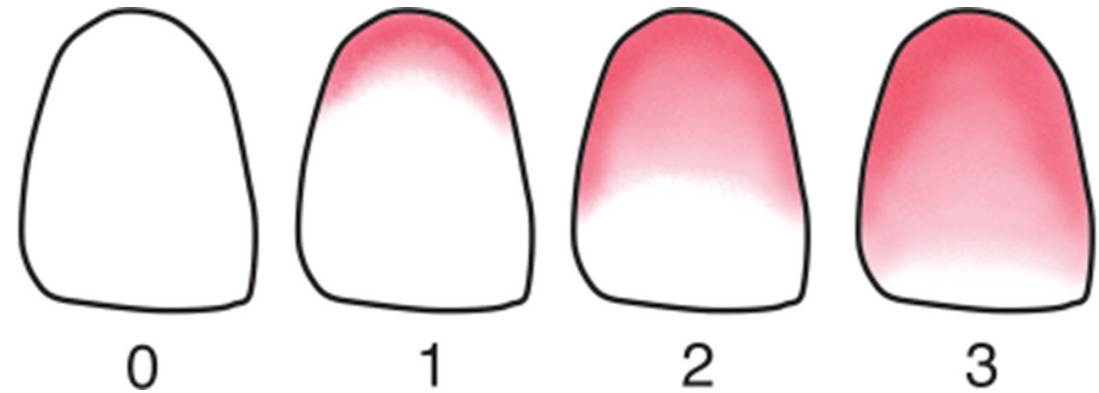
Plaque Index Scoring Criteria

0 = No soft debris or stain present

1 = Stainable soft material covering up to 1/3 of the tooth surface

2 = Stainable soft material covering half of the tooth surface

3 = Stainable soft material covering more than 3/4 of the tooth surface



Obtaining the score and interpreting results

PI = Total debris score ÷ Number of teeth scored

Now we know how our patient is doing with their oral hygiene.

Use those results to motivate and educate your patients

Is this score reversible?

<u>Initial Plaque Score</u>		
3B _____	8F _____	14B _____
19L _____	24L _____	30L _____
PI = Sum of scores from 6 surfaces/6		

Score Results/Ratings
0 = Excellent
0.1-0.6 = Good
0.7-1.8 = Fair
1.9-3.0 = Poor



Methods for Manual Toothbrushing

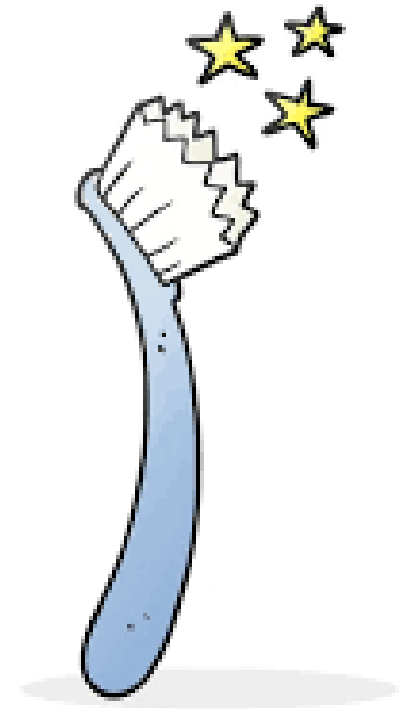
The ideal toothbrushing technique is one that the patient can perform effectively to remove plaque biofilm without damage to hard and soft oral tissues.

Hands-on instruction with the patient leads to improvement in their brushing methods.

You will be introduced to and practice on each other the following techniques:

- Sulcular brushing – Modified Bass technique
- Supplemental brushing

**Other brushing techniques are demonstrated during lecture*



The Bass and Modified Bass Methods

It is a type of **sulcular** brushing. The areas at the gingival margin and in the col are the most significant in the control of gingival and periodontal infections.

Purposes and Indications

- Dental biofilm removal adjacent to and directly beneath the gingival margin.
- Open embrasures, cervical areas beneath the height of contour of the enamel, and exposed root surfaces.
- Adaptation to abutment teeth/implants, under the fixed partial dentures.

Limitations

- The toothbrush bristles extend only 0.9 mm below the gingival margin so plaque removal in the sulcus is limited
- Aggressive brusher may misinterpret “very short strokes”
- Dexterity requirement

The Bass and Modified Bass Methods Procedure:

A. Position the brush:

- direct filaments apically (↓ for mandibular teeth ↑ for maxillary teeth)
- position bristles parallel to the long axis of the teeth
- turn the brush head towards the gingival margin to make a 45° angle to the long axis of the tooth
- direct the filament tips into the sulcus

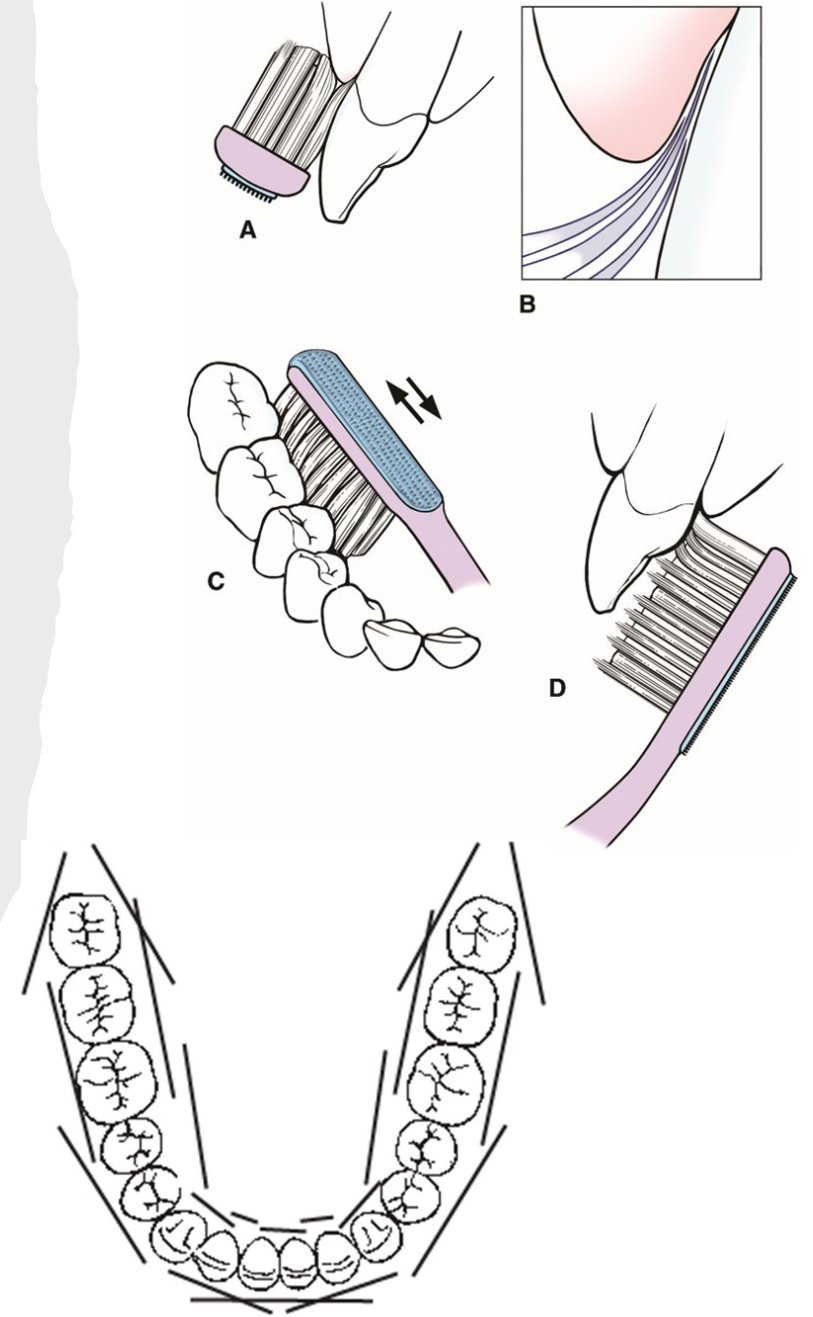
B. Strokes:

- Press lightly into embrasure spaces and sulci, do not bend filaments with access pressure.
- Vibrate the brush back and forth with very short strokes (at least 10 vibrations)
- Follow by rolling the brush down over the crown of the tooth

C. Reposition the brush (next 2-3 teeth)

D. Repeat steps A-C

E. Position TB vertically for cleaning lingual aspects of anterior teeth



Supplemental Brushing Methods

Occlusal Brushing

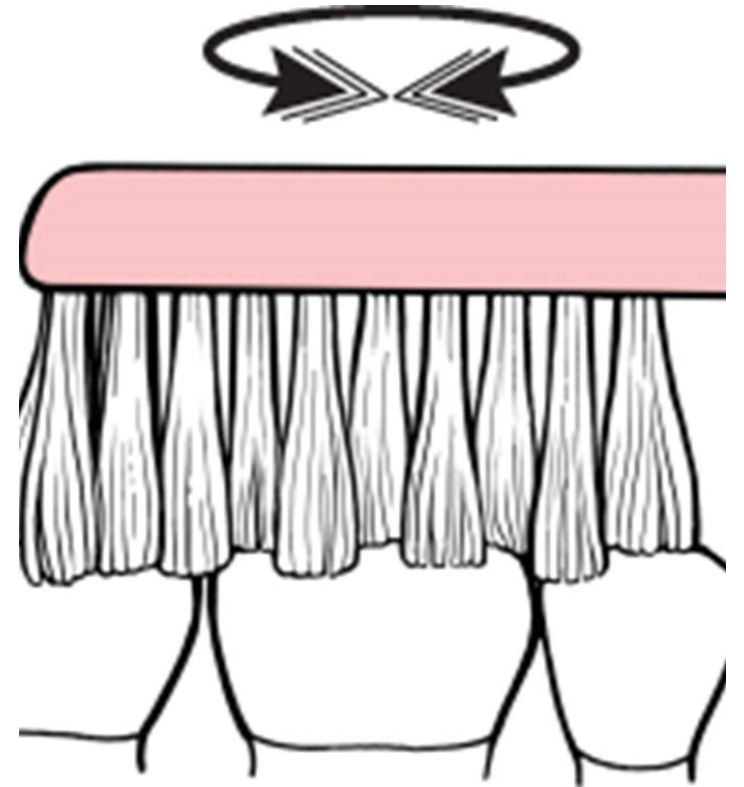
Purpose: Loosen food debris and biofilm microorganisms in pits and fissures and margins of occlusal restorations.

Procedure

- Place brush head on the occlusal surfaces of molar teeth with filament tips pointed into the occlusal pits at a right angle.
- Position the handle parallel with the occlusal surface.

Strokes: 2 acceptable strokes

- Vibrate the brush in a slight circular movement while maintaining the filament tips on the occlusal surface throughout a count of 10.
- Force the filaments against the occlusal surface with sharp, quick strokes; lift the brush off each time to dislodge debris; repeat 10 times.



Supplemental Brushing Methods

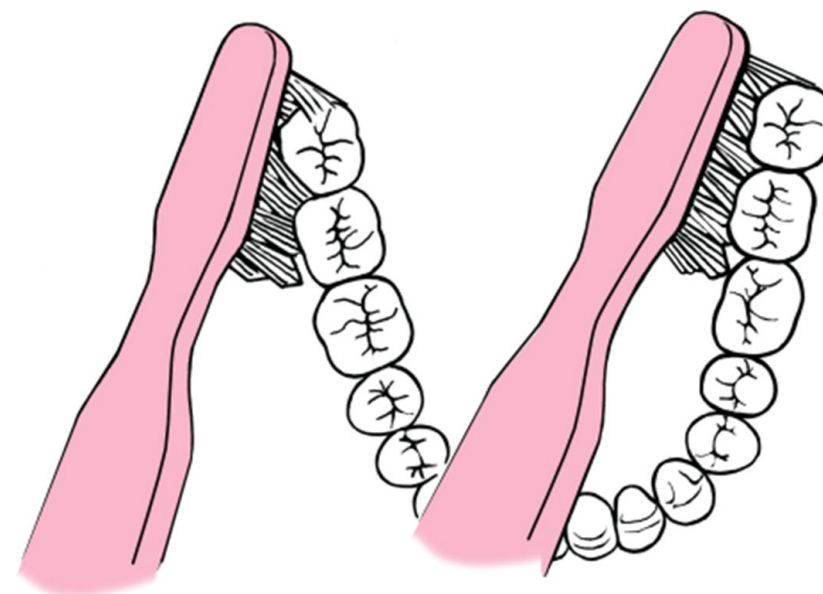
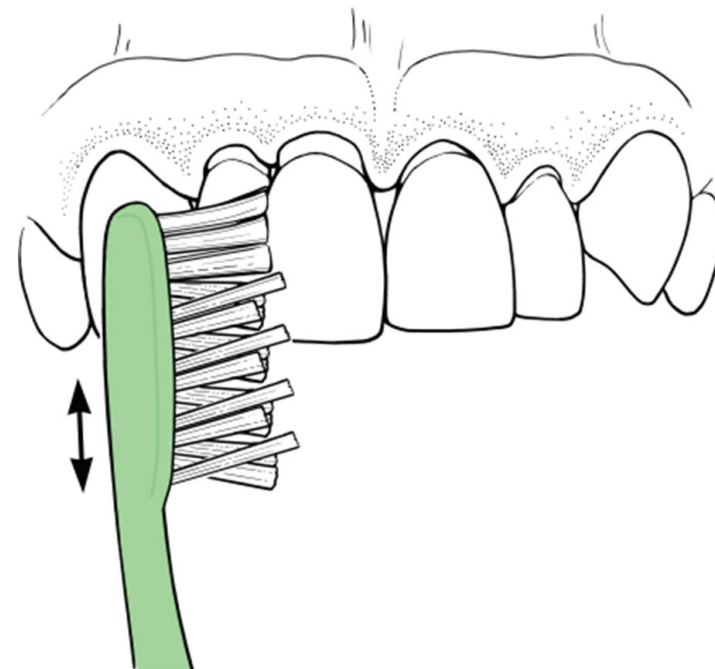
Brushing Difficult-to-Reach Areas

Adaptations

- Ask patients to demonstrate how they brush
- Use disclosing solution to provide the patient and clinician with visibility of difficult-to-reach areas
- Monitor the difficult-to-reach areas on subsequent appointments

Areas for Special Attention

- Distal surfaces of most posterior teeth
- Facially displaced teeth (canines and premolars) - risk for gingival recession and toothbrush abrasion.
- Lingually inclined teeth such as the maxillary anterior teeth.
- Exposed root surfaces: cemental and dentinal surfaces.
- Overlapped teeth or wide embrasures, which may require the use of vertical brush position
- Surfaces of teeth next to edentulous areas.



Dental Floss and Tape

Limitations: dexterity, compliance, and effectiveness.

Types of floss

- Silk – historically, made of loose silk fibers and waxed.
- Nylon – multifilament, waxed/unwaxed, circular (floss) or flat (tape)
 - Waxed – helps slide through the contact area, minimizes tissue trauma, minimizes breakage
 - Unwaxed – added color/flavor, thinner, must be cautious to minimize trauma, can become frayed, shred and break easily.
- **Polytetrafluoroethylene (PTFE)** –resists breakage, easier to pass through the contact (less force needed)



The Circle (tied) Technique

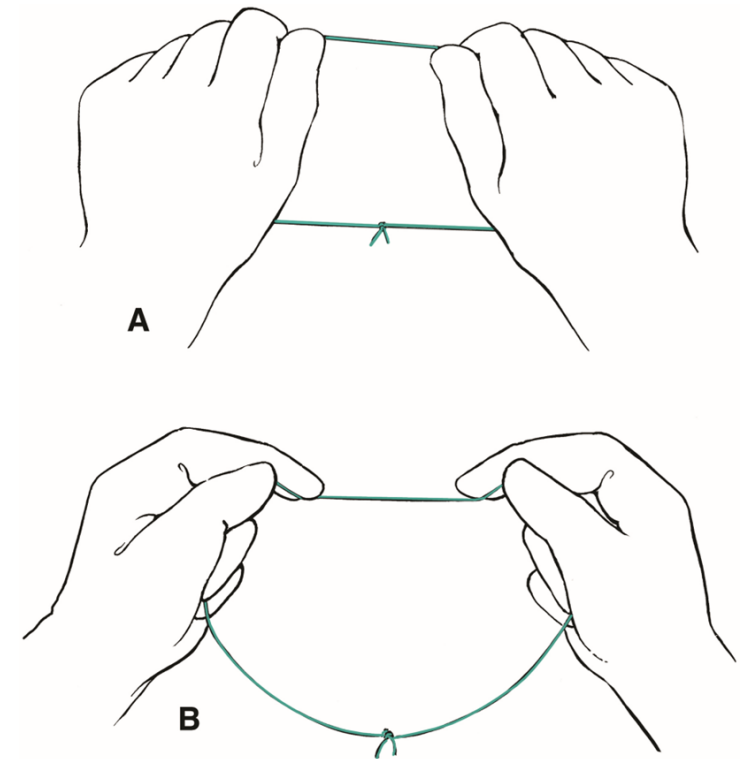
No ideal sequence, some suggest flossing before brushing

Preparation:

- Hold a 12- to 15-inch length of floss with the thumb and index finger of each hand.
- Grasp firmly with only half an inch of floss between the fingertips.
- The ends of the floss may be tucked into the palm and held by the ring and little finger, or the floss may be wrapped around the middle fingers
- A circle of floss or “floss loop” may be made by tying the ends together; the circle may be rotated as the floss is used (improved user compliance, easier handling, lower string waste, and increased string hygiene).

Causes of Flossing Injuries (Floss cuts or clefts)

- Using a piece of floss that is too long between the fingers.
- Snapping the floss through the contact area.
- Not curving the floss about the tooth adequately.



The Spool Technique

Application

- Maxillary teeth: Direct the floss upward by holding the floss over two thumbs or a thumb and an index finger. Rest a side of a finger on the teeth of the opposite side of the maxillary arch to provide balance and a fulcrum.
- Mandibular teeth: Direct the floss down by holding the two index fingers on top of the strand. One index finger holds the floss on the lingual aspect and the other on the facial aspect. The side of the finger on the lingual side is held on the teeth of the opposite side of the mouth to serve as a fulcrum or rest.

Insertion

- Hold firmly in a diagonal or oblique position.
- Guide the floss past each contact area with a gentle back and forth or sawing motion. Control floss to prevent snapping through the contact area.

Cleaning Stroke

- Clean proximal tooth surfaces separately.
- Pass the floss below the gingival margin, curve to adapt the floss around the tooth, press against the tooth, and slide up and down over the tooth surface several times.
- Move the floss to a new, unused portion for each proximal tooth surface.

