

## Lec. 12

# Interdental cleaning

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1. removal food & plaque stagnation.
2. earliest area to be affected .
3. the tooth brush does not reach the interproximal spaces efficiently as they are difficult to access.



# Factors we need to consider when selecting the appropriate interdental cleaning method are :

- the contour & consistency of the gingival tissue .
- the size & shape of the interproximal space.
- the morphology of the proximal tooth surface.
- tooth position & alignment.
- the manual dexterity & motivation of the patient.
- fixed dentures & orthodontic appliances.
- restorations.



# Dental floss & tape:

- Flossing is the most universally applicable method, flossing remove up to 80 % of proximal plaque .Even subgingival plaque can be removed since dental floss can be introduced 2\_3.5mm below the tip of the papilla. Dental floss is most useful where the interdental papilla completely fill the embrasure space in healthy patients.



# Several types of floss are available:

- 1.Unwaxed is used in normal tooth contacts because it slides easily.
- 2.waxed is used in tight proximal tooth contacts & after brushing because the wax deposits prevent fluoride from the toothpaste to precipitate on teeth.
- 3.Afloss holder to facilitate flossing might be used.
- 4.tape: a type of broadened dental floss used for cleaning bridge pontics.
- 5.super floss used for patients with crowns ,bridges & orthodontic appliances.

# Wood sticks:

- They are indicated for plaque removal, if the interdental spaces are slightly open (recession) and even in cases of poor manual dexterity since they are easy to use, they are usually made of soft wood & have a triangular shape. Recently, brush sticks have been introduced they are elastic with tiny hair –like bristles and fine plastic files.



- interdental brushes: these are the aid of choice for:
- widely open interdental spaces.
- when root surfaces with concavities or grooves have been exposed.
- in through \_and \_through furcation defects in periodontitis patients.



- They are manufactured in different sizes & forms. The most common forms are cylindrical or conical shaped head, they are easy to use & can also be used as a carrier to apply fluoride or chlorhexidine gel into the interdental space. When brushes are not properly used, they may cause dentin hypersensitivity ,thus interdental brushes should be used without dentifrices except in special cases and for short term.

# Single tufted brushes:

- For cleansing areas which cannot be reached without other devices. They are designed to improve access to distal surfaces of posterior molars, tipped & rotated teeth, around & under fixed appliances, pontic, orthodontic appliances and teeth affected by gingival recession & furcation involvement.





# Adjunctive aids:

- Irrigation is not however ,a monotherapy but used as an adjunct to brushing & flossing .they may be used with water or with chlorhexidine that lead to improved plaque inhibition and had an inflammatory effect.with specially designed tips the fluid may penetrate deeply into the pocket.



# Tongue cleaners:

- The dorsum of the tongue harbors a great number of microorganisms. These bacteria may serve as a source of bacterial dissemination to other parts of the oral cavity & may contribute to dental plaque formation & halitosis. Therefore, tongue brushing or scraping has been advocated as part of daily home oral hygiene, together with tooth brushing & flossing to remove microorganisms & debris from the tongue, particularly the posterior portion of the dorsum.



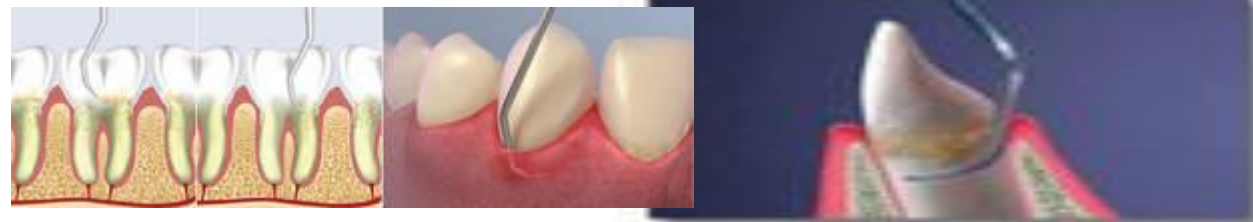
# Effects & sequelae of the incorrect use of mechanical plaque removal devices:

- Tooth brushing can cause damage both to soft & hard tissues, cause gingival erosion & gingival recession. Trauma to hard tissues lead to cervical abrasion of the tooth surface which is mainly caused by the abrasives in the dentifrice. These lesions have been associated with toothbrush stiffness, the method of brushing, brushing frequency / time, excessive brushing force, and improper brushing force, and improper use of both manual and powered tooth brushing.



# Scaling & root planning:

- Scaling is the process by which plaque & calculus are removed from both supragingival & subgingival tooth surfaces.
- Root planing is the process by which residual embedded calculus and softened cementum are removed from the roots to produce smooth, hard & clean root surfaces.
- The supragingival scaling is the initial phase of debridement of the dentition in patient with periodontal disease in order to facilitate the subsequent subgingival scaling, so supragingival calculus & gross overhang or metal crown should be removed first, then the dentition are polished so that the patient can start self performed plaque control program.



- Subgingival S & Rp, although they are considered as two separated procedures with different objectives but in clinical work they are always carried out together & can be carried out in sessions, the number of teeth included in each session for RP depend on the skills of the operator and severity of case, usually (4-6)teeth.at the beginning the area is probed to identify:
- 1.probing pocket depth. 2.anatomy of the root . 3.location of the deposits.

# Scaling & root planning aims to :

- Restore the gingival health by the removal of bacterial plaque ,calculus & the superficial layer of cementum however ,calculus & plaque grow in surface irregularities of cementum furthermore,bacterial products (such as endotoxine) penetrate into the cementum surface.
- The creation of clean &hard root surfaces that is as smooth as possible (which inhibits further plaque retention) must be achieved to promote tissue healing possibly with the formation of a long junctional epithelium and aids soft tissue reattachment.

- **Sub gingival scaling & root planning** are performed as either closed or open procedure. The closed procedure implies subgingival instrumentation without displacement of the gingiva, thus less trauma, pain, bleeding and minimal recession (which is important for esthetics, especially anteriorly) were achieved. In addition, wound healing occurs more rapidly following closed procedures. Closed therapy is the definitive treatment for mild & moderate periodontitis. Closed therapy limitations include its performance without direct vision & good access for the instruments.

- its success is dependent on knowledge of root morphology. Even the experienced hygienist will not always effectively treat all root surfaces, nor completely remove all plaque & calculus from all surfaces, e.g. S & RP of poorly accessible, irregular root surfaces, in deep, narrow or distal pocket & substantial furcation involvement, even in patients with minimal mouth opening capacity & with expansively progressive disease.
- **Open procedure** calls for exposure of the affected root surface by displacement of the gingival tissue, thus gingiva is incised and reflected to facilitate access for the instrument and visibility for the operator.