# Sheet no. : 2

# Refer to slide no. :1

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**Class V Cavity Preparation**

# In the last semester we talked about class lll and lV …..now we continue with class v ….

***Definition*** : Class V is located in the gingival 1/3 of facial and lingual tooth surfaces.

* In class3 ,4 we just use composite but in class V we have other choices , we can use amalgam , glass ionomer .

* ***Clinical technique***:

 is the same as class III ; IV :-

* **1- Anesthesia :** (Pts comfort , decrease salivary flow).
* **2- Shade selection :** (teeth are darker cervicaly), it depends on esthetic area in class V but it is more important in class IV ,,, notice that incisal area is more translucent than cervical area ..
* **3- Isolation:** (visibility, expose the margins)…..it is more important in class V .
* ***We have two ways to isolation in class v :***

***1) 212 isolation :*** which is specific for class V (some doctors do surgery to expose the gingival margin )

* We have modified 212 which has a buccul side ‘s comes more gingivaly compared to lingual side because we use it to restore the buccul side …….
* we also need a clamp that be able to down under class v ,
* clamp has two beaks : a- facial ( more gingivaly )

 b- lingual.

* We have different type of clamps , some of them we use it directly ; others we need to expose to fire to bent it (allow facial beak to become more gingival )
* 

Hole is more facial than other , this provide more space to pull the RD more gingival , because if it is on the same level ; the RD will torn .

**2) retraction cord and cotton**

**4- Tooth preparation.**

**5 - Pulp Protection.**

**6- Restoration.**

* **Tooth Preparation for carious lesions : same as slides .**

**Just put these notes :**

**\* Preparation start with high speed hand piece and we have to be careful to axial wall .**

**\*we have to follow the contour of the tooth according to the anatomy.**

**\* Tooth is convex so the bur must be perpendicular on the outside surface of the tooth to achieve 90 degree on the walls.**

**\* retention point : always when we have a cavity on the root surface we need more retention so we achieve it from grooves .**

**\* grooves of class V are always located between :**

**1) insical part and axial wall.**

**2) axial wall and gingival part .**

**\*beveled conventional is indicated only when we use composite restoration .**

* **usually we connect between cavity lesion and caries ,but we have some lesions , we call them non carious cervical lesions (we don’t have bacteria ) . but still we have lesion ( part of structure are lost ) .**
* **We have three types for non carious cervical lesions :-**
1. **Abrasion : from tooth brushing on cervical area ( some pts use floss without brushing so with time loss of tooth structure will happen ).**
2. **Erosion : loss of tooth structure ,but here the cause is acid either external (pts drink a lot of citrus so with time tooth will dissolve ) or internal ( some syndromes make pts vomiting so mouth becomes more acidic environment ,tooth structure will dissolve as a result ).**
3. **Abfraction : it still theory , no evidence for it .**

 **But in general : it is a lose of tooth structure due to a fracture of tooth under a mechanical loads on occlusal surface . when tooth make an occlusion with opposing tooth (now tooth gain a force toward apical area , cervical may have fraction (force rotates bidirectional ,one of these bidirectional force goes apical and make fraction on cervical area ). with times if we have heavy occlusal area , enamel start shaping and lesion will form.**

**(( it is difficult to distinguish between them ))**

* **factors of non carious cervical lesion that help us to determine whether we have to do restorations or not :**
1. **If we found caries on the cavity , then restore.**
2. **Gingival health : if we have a plaque accumulation and pts cant clean this area , then restore.**
3. **Esthetics : if erosion , abrasion ,abfraction on anterior teeth ,then restore.**
4. **Sensitivity: if pts show more sensitivity for hot or cold ,because we have exposed dentin tubules , then restore.**
5. **Pulp protection: if we have a wide or deep lesion , it will be close to the pulp , so we have to protect the pulp , then restore,**
6. **Tooth strength : if the lesion weaken the tooth , then we have to restore to protect cervical area .**
* **other than that (I wont do restoration ).**

**\* if we don’t control these lesions , it will progress to the worst. So I have to control predisposing factors before start restore .**

**\* in non carious lesion : I wont do cavity either conventional or non conventional . what should I do is only :**

 **1) roughening internal wall with diamond bur.**

 **2) bevel enamel margins with composite ( tow choices either composite or glass ionomer).**

 **3) place grooves if more retention is required .**

**(( we don’t use amalgam with beveled conventional )).**

 **\*\*\* Pulp protection \*\*\***

* **If the cavity is so deep , we put :**
1. **Calcium hydroxide as a protection to the pulp.**
2. **We use RMGIC linear to seal dentinal tubules.**

 **\*\*\* restoration material selection \*\*\*\***

**\* we have more than one fact we can determine which material I will use :-**

**1) aesthetics : definitely we won’t put amalgam on aesthetic area , I will put composite .**

**2) caries activity :** is a **report for pts whether caires active or not , also he brushes his teeth or no .**

**\* pts have degrees (some they are in low , moderate and high risk , so depending upon it , the protection and restoration will differ .**

* **composite : it’s one of materials that I have to avoid using it with high risk of caries because composite will shrink and micro leakage will happen , so I will resort to change composite .**
* **Most material recommended to use with high risk caries is glass ionomer 7 ( because it release fluoride , it may protect tooth in demineralization).**
1. **Access to the lesion : we have to make clear cavity , because if I don’t make it clear , I will get recurrent caries .**

**So usually if access to lesion is difficult ; it is preferred to use glass ionomer if I found remaining caries to take advantage of fluoride release .**

1. **Moisture control :**
* **composite is very sensitive to moisture ; amalgam is less sensitive than composite.**
* **Glass ionomer need isolation .**
* **If I could not control moisture , could not use cotton ,could not use rubber dam ; so usually resort to amalgam .**
1. **Pts age : we notice in elderly people ;some they have poor oral hygiene and physical problems so usually we use for them glass ionomer cement .**

 **\*\*\* glass ionomer \*\*\***

* **bonds to tooth structure ; less prepping necessary ; release fluoride .**
* **need modifying (setting).**
* **we use phosphoric acid as acid etching in composite ; we don’t use phosphoric acid with glass ionomer (we use another one which is less acidic)**
* **there is no bonding in glass ionomer cement ; we put the**

**restoration directly .**

**\*\*\* cervical matrix :**

* **outside wall , transparent , it has similar shape as cervical area , it has applicator which hold it in its position .**
* **I put my restoration below it toward tooth structure to avoid defect ( it release excess material and I have to remove it ) .**
* **Cervical matrix : for application of glass ionomer or composite .**

 **\*\*\* matrix band :**

* **Metal , we put it around the tooth to allow us to make condensation for amalgam.**

**For application of amalgam.**

* **Application of amalgam : I start with condensation , then burnishing , then curving (no groove ; it is smooth surface) .**

Winning is not always in the top

 .. But rising up ..

Every time we fall ..