

All ceramic crown (porcelain jacket crown)

It is the most esthetically pleasing fixed restoration, because there is no metal understructure to block light transmission. It can resemble natural tooth in term of color and translucency than can any other restoration.

**Indications:**

1. High esthetic requirement.
2. Considerable proximal caries and/or facial caries that can no longer be effectively restored with composite resin.
3. The tooth should be relatively intact with sufficient coronal structure to support the restoration, particularly in the incisal area.
4. Endodontically treated teeth with post & core.

Contraindications:

1. When superior strength required. (Metal-ceramic crown more appropriate for posterior teeth).
2. Insufficient tooth structure for support (very short teeth or very thin).
3. Edge to edge occlusion and heavy bruxism.

Advantages

1. Superior esthetics.
2. Good tissue response even for subgingival margin.

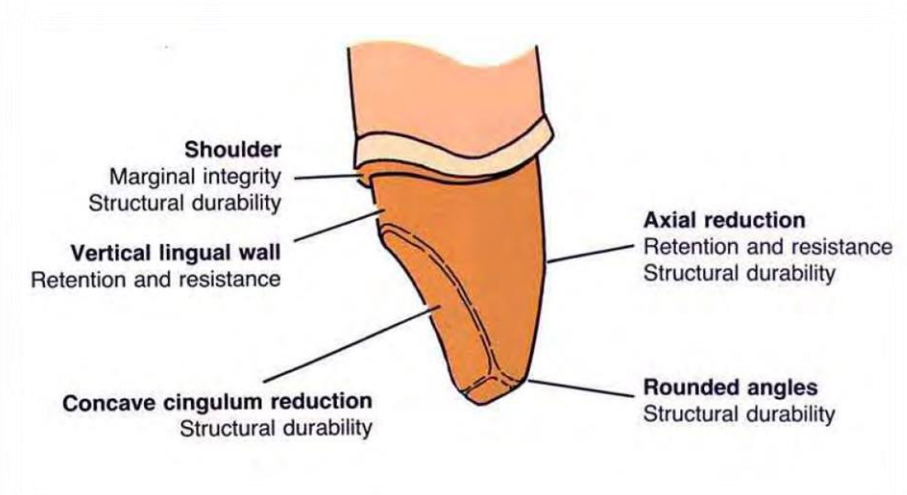
Disadvantages

1. Reduced strength of the restoration because of the absence of a reinforcing metal substructure.
2. The least conservative preparation.

3. Brittle nature of the material.

Preparation requirements:

1. The preparation must be as long as possible to give support porcelain.
2. Radial shoulder or deep chamfer F.L of 1mm is required in all aspects by (rounded end tapered fissure bur).
3. Incisal edge reduction 1.5-2 to provide clearance for porcelain in all mandibular movements (centric & eccentric) this important to provide a cosmetically pleasing restoration with adequate strength. The incisal edge is flat with slight inclination toward the lingual in lower teeth, palatal in upper teeth.
4. Facial reduction: After placing of D.G., reduce the facial or buccal surface and verify that adequate clearance exists for 1 mm of porcelain thickness. Two planes reduction as mentioned in Metal-Ceramic crown.
5. Lingual reduction: as the same of metal –ceramic crown but with deeper reduction (1mm).
6. **Type of finishing line:** is radial shoulder or deep chamfer all around placed sub gingival or with gingival level, using gingival Retraction cord.
7. All sharp angles of preparation should be rounded to avoid the creation of stress concentration areas.



Acrylic jacket crown

It is totally, made from tooth colored **acrylic resin**, most of time used as temporary crown restoration. The preparation of the tooth is basically, the same as that for Porcelain jacket crown.

Disadvantages:

1. Poor marginal fitness.
2. Poor tissue response.
3. Discoloration with time.
4. Loss of contour (wear easily).

Porcelain laminate veneers

Laminate veneering is a conservative method of restoring the appearance of discolored, pitted, or fractured anterior teeth. It consists of bonding thin ceramic laminates onto the labial surfaces of affected teeth. The bonding procedure with the luting resin is usually used.

Advantages and Indications:

The main advantage of laminate veneers is that they are conservative of tooth structure. Typically, only about 0.5 mm of facial reduction is needed. Because this is confined to the enamel layer, local anesthesia is not usually required. Esthetic veneers should always be considered as a conservative alternative to cemented crowns.

