

## **Types of crowns**

### **1) The complete cast crown.**

It involves all axial walls as well as occlusal surface of the tooth being restored.

### **Indications:**

1. Teeth with extensive caries, large amalgam restorations In order to protect the remaining tooth structure and amalgam from fracture.
2. Teeth where maximum retention and resistance is needed as short crowns.
3. As a bridge retainer.
4. Re - contouring of the tooth.
5. Teeth receiving clasps for partial denture (abutments for partial denture)

### **Contra-Indications:**

1. If high esthetic need is demanded.
2. If a more conservation crown could be used, ex: 3/4 crowns. As intact buccal surface, very short Span Bridge.
3. When caries index is low.



## 2) Cast metal crown with facing.

**A) Acrylic Facing:** The simple laboratory processed acrylic facing deteriorates in the mouth by being worn away, discoloration and leakage at the margins. It's still made since it's more economical than the metal – ceramic crown.

**B) Composite faced crowns:** The laboratory processed composite is cured by an intense light and sometimes with the addition of heat or pressure. The cast metal frame work needs to be mechanically retentive for the facing.



### Indications: -

1. Improvement of esthetic (cariou teeth, malposed teeth, peg shaped lateral incisor, colored teeth).
2. Fracture of tooth.
3. Teeth with large filling.
4. As a bridge retainer especially in long span bridge.
5. On endodontically treated teeth with sufficient tooth structure.

## **Contra indications:-**

1. Teeth with large pulp (Because of possibility of pulp exposure during preparation).
2. Teeth with short crowns.
3. Patient with bad oral hygiene.

### **1) The metal ceramic crown.**

The restoration consists of a complete-coverage cast metal crown (or substructure) that is veneered with a layer of fused porcelain to mimic the appearance of a natural tooth.

#### **Uses:**

On teeth that require complete coverage, but significant esthetic demands are needed.



### **4) All ceramic crown.**

In this type of restoration, there is no metal to block light transmission and it can resemble natural tooth structure in their color and translucency.

#### **Indications:**

High esthetic requirement is needed

#### **Contraindications:**

- 1) Very short teeth.
- 2) Edge to edge occlusion.

3) Patient with heavy occlusion.



### **5) Crown for root – filled teeth (post crown).**

It is a fixed restoration, which replaces the coronal part of the tooth completely and is retained by means of post (dowel), which is extended and cemented to the root canal.

The post crown reinforces the remaining tooth structure against forces by distribution them to the surrounding structure.

Parts of post crown:

- 1) The post (dowel): it is the part of the crown, which extended into the root canal; it should be  $\frac{2}{3}$  of the root length.
- 2) The core: it is the coronal part of the post crown.
- 3) The crown, the crown should be either a full metal, full veneer or jacket crown (acrylic or porcelain).

There are two types of post- crowns:

- 1) Two-unit post crown (post and core + crown).
- 2) One unit post crown.

## Advantages and indications of two unit system post-crown

- 1) Young patients under 18 years old, because the gingiva-tooth relationship will change with time.
- 2) The two-unit system can be repaired if crown is damaged.
- 3) When the endodontically treated tooth is to be used as a bridge abutment, it is not necessary to do the post crown preparation parallel with the adjacent teeth.

**One piece post crown:** In some cases, such as a very short clinical crowns or lower incisors, there is insufficient space within the crown of the tooth to make both a retentive core and a separate crown.

Posterior teeth can be restored by selecting the canals that are widest (normally the palatal of maxillary molars and the distal of mandibular molars) for the major post and then preparing short auxiliary post spaces in the other canals with the same path of withdrawal.



THANK YOU