

SELECTION OF ARTIFICIAL TEETH

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Principles of selection of artificial teeth

- 1.The teeth should appear natural and life-like.
- 2.It should serve the functional need of the patient.
- 3.They should be easy to use in laboratory procedures.

Methods of anterior teeth selection

Pre-extraction Records

A . *Diagnostic casts*: The diagnostic casts of patient's natural teeth or restored teeth prior to extraction

B . *Recent photographs*: They will often provide general information about the width of the teeth and possibly the outline form that is more accurate than information from any other source.

C . *Radiographs of teeth*: Radiographs, made before the natural teeth were lost, can provide information about the size and form of the teeth to be replaced.

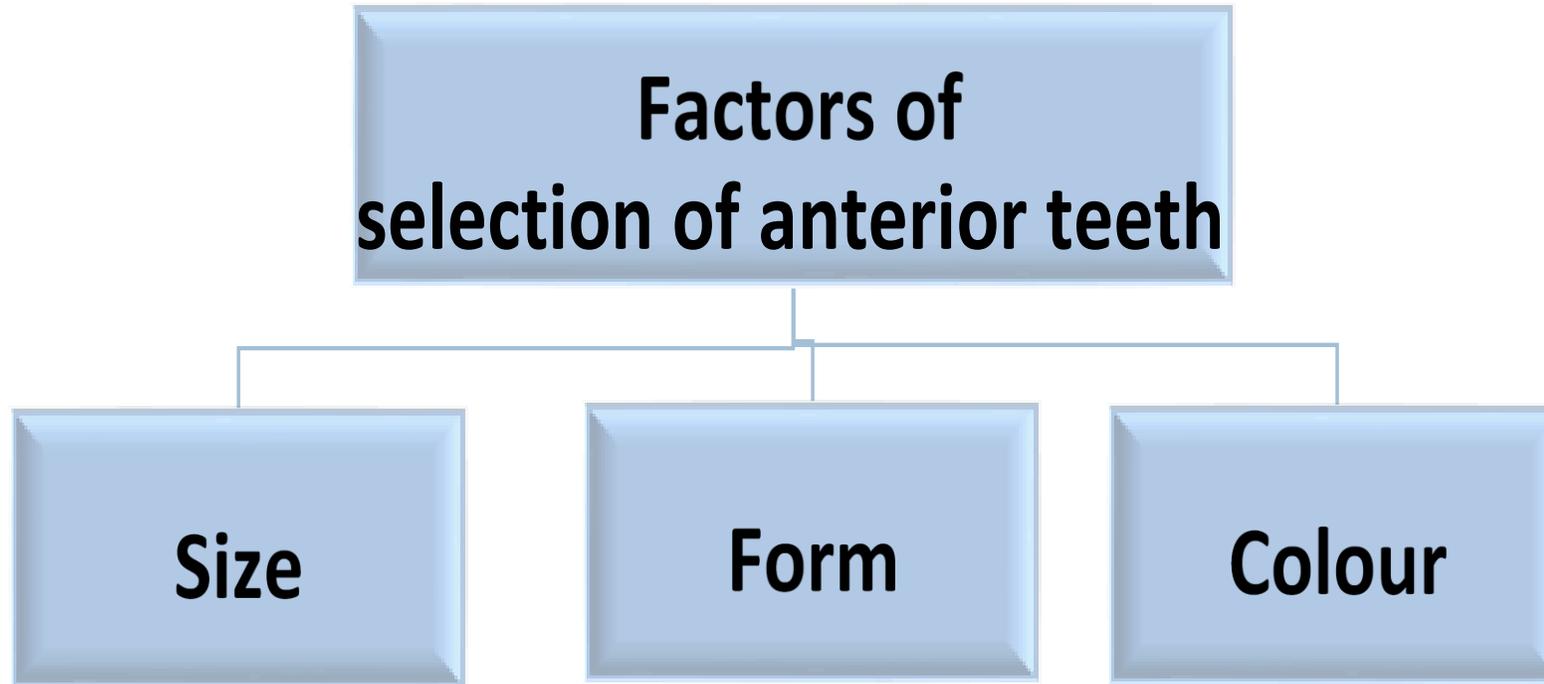
D . Previous partial denture

Post-extraction Examination

A . Size and form of edentulous foundation.

B . Matching teeth to face forms and arch form.

➤ **Factors of selection of anterior teeth**



I. Size of anterior teeth

The length and the width of the teeth determine it.

Length: -the length of the upper anterior teeth is control by:

A. Inter ridge distance.

B. Length of the lip

-In short lip more than (2mm) seen from upper central incisor.

-In medium lip (1-1.5mm) seen from upper central incisor.

-In long lip nothing can be seen from upper central incisor.

2.Width of the anterior teeth : -several methods were used to select the anterior teeth as ex:

I.the width of natural central incisor is approximately 1/16 of the bizygomatic width, and the width of upper 6 anterior teeth is about 1/3 of bizygomatic width of the face.

Bizygomatic width = Estimated width of maxillary central incisors.

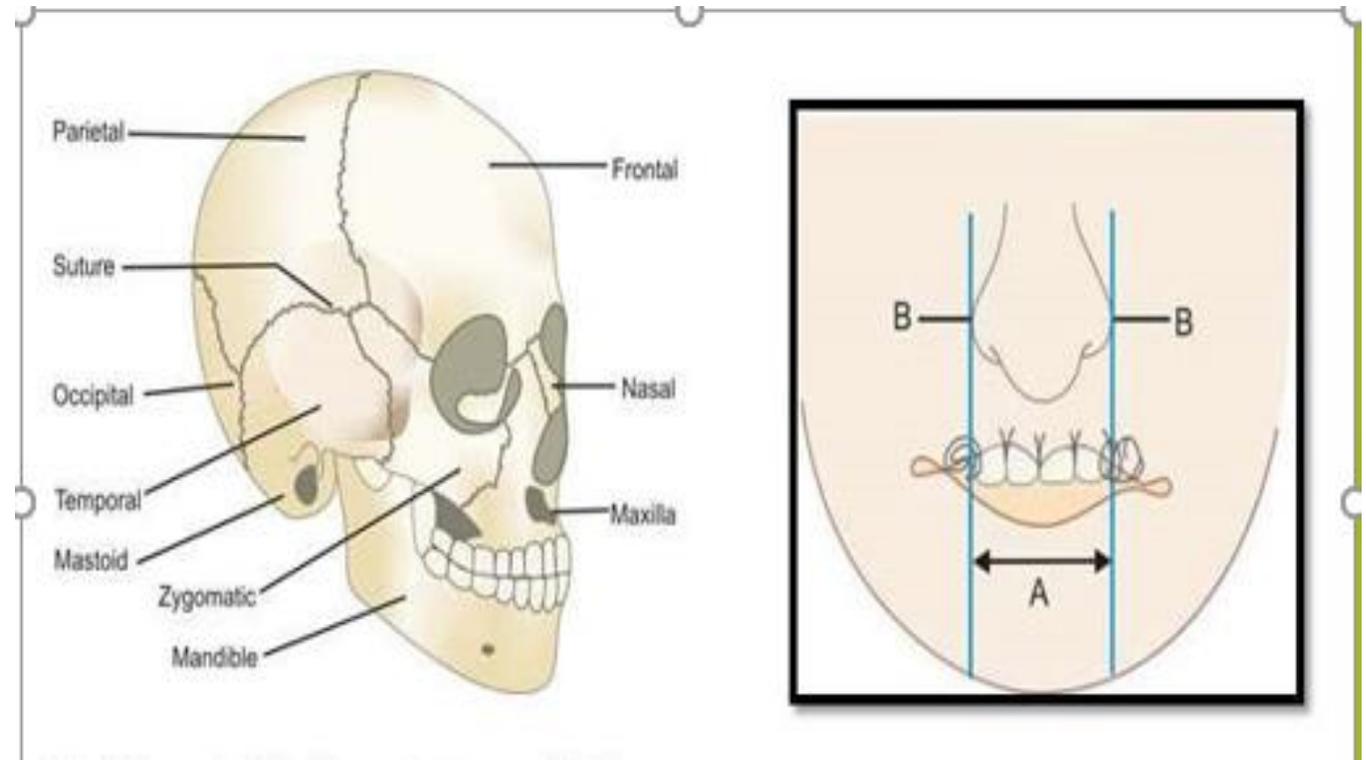
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Bizygomatic width = Approximate width of 6 anterior teeth.

3.3

II-the width of the upper anterior teeth can be measured on the upper occlusal rim depend on:

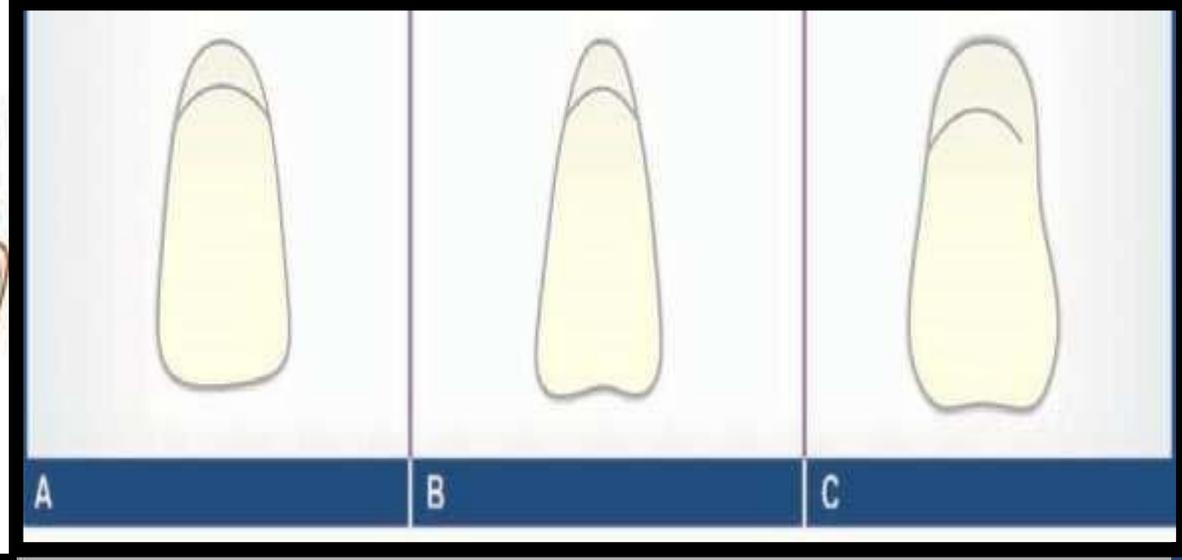
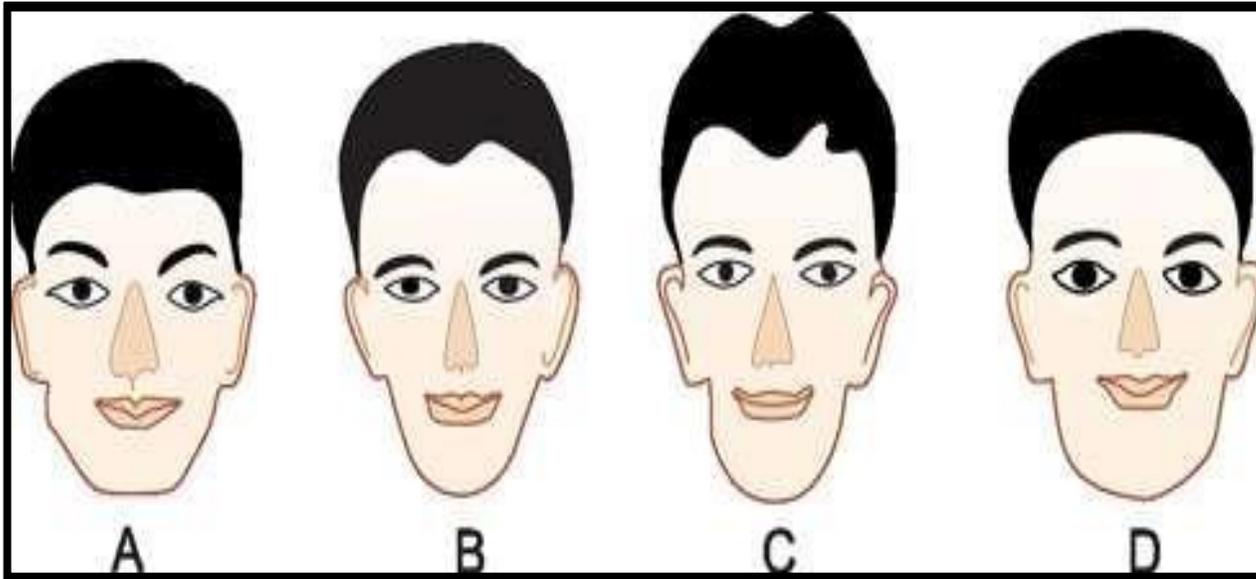
- **Corner of the mouth.**
- Buccal frenum.**
- Canine eminence.**



Form of anterior teeth

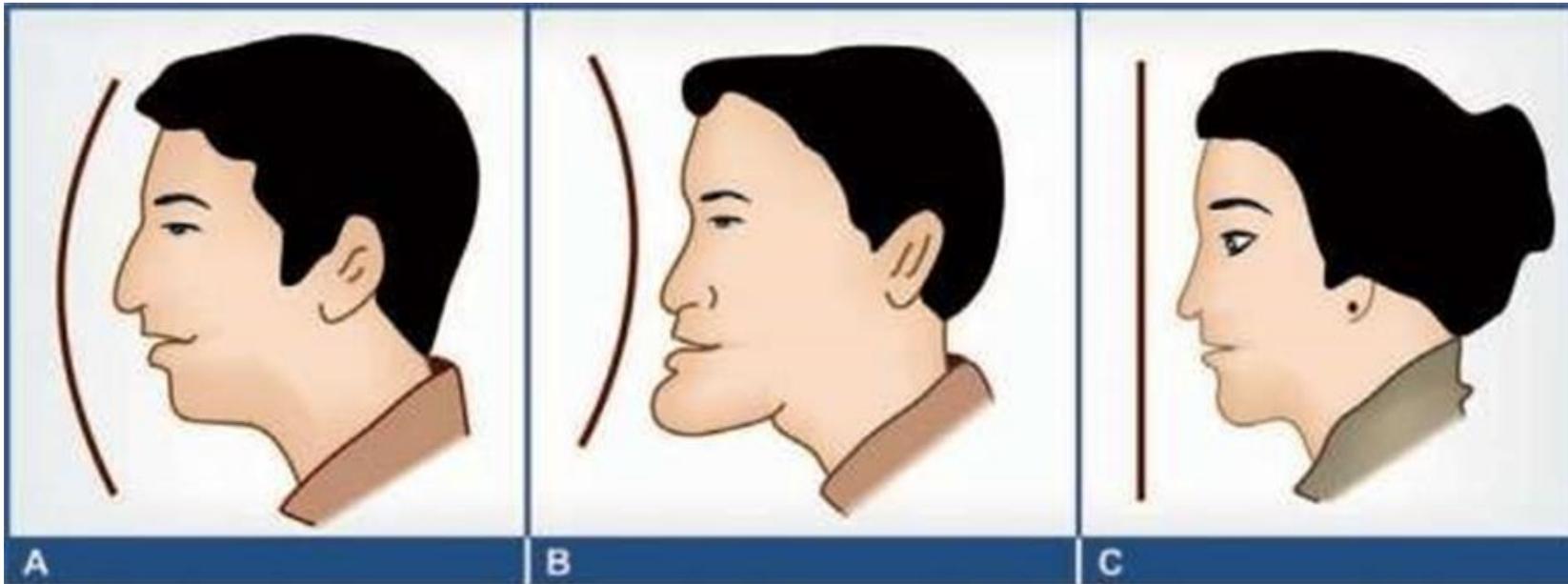
1-Based on face form and arch form

It can be square, tapering or ovoid depending on the arch form



2-Based on profile of the face:

The labial surface of the tooth viewed from the mesial aspect should show a contour similar to that when viewed in profile.



II. Factors influencing size and form of anterior teeth

- 1. Size of the face.*
- 2. Amount of available inter arch space.*
- 3. Measured distance between distal of right and left maxillary cuspids.*
- 4. Length of the lip.*
- 5. Size and relation of arches.*
- 6. male or female patient*

III. Colour of anterior teeth

.The colour of teeth has four qualities

1. **Hue**: It is the specific colour produced by a specific wavelength of light acting on the retina. The hue of teeth must be in harmony with the colour of patient's face.

2. **Saturation or Chroma**: It is the amount of colour per unit area of an object.

3. **value**: It is the lightness or darkness of an object.

4. **Translucency**: It is a property of an object that permits the passage of light through it.

➤ **Factors of selection of posterior teeth**

1-Shade.

2-Size and Number of Posterior Teeth.

3-Buccolingual width of posterior teeth.

4-Mesio-distal width of posterior teeth.

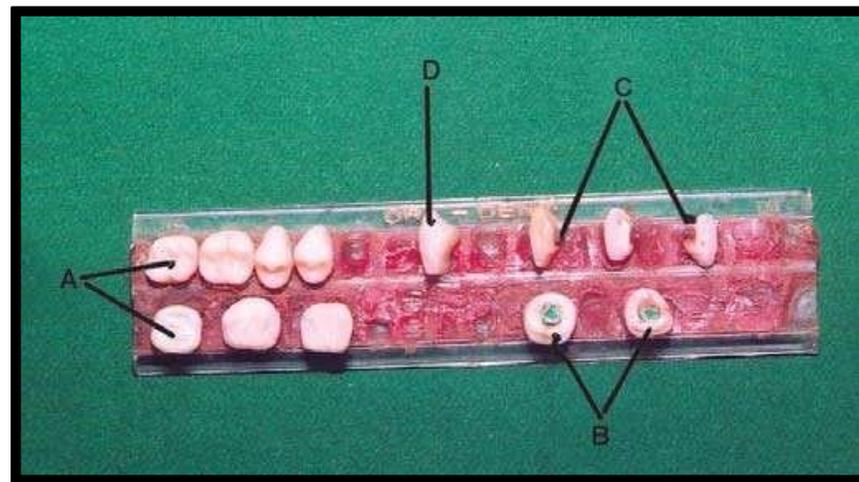
5-Vertical length of buccal surface of posterior teeth.

➤ Types of teeth according to materials

Most artificial teeth are made of porcelain, acrylic resin or a combination of acrylic resin and metal occlusal surface.

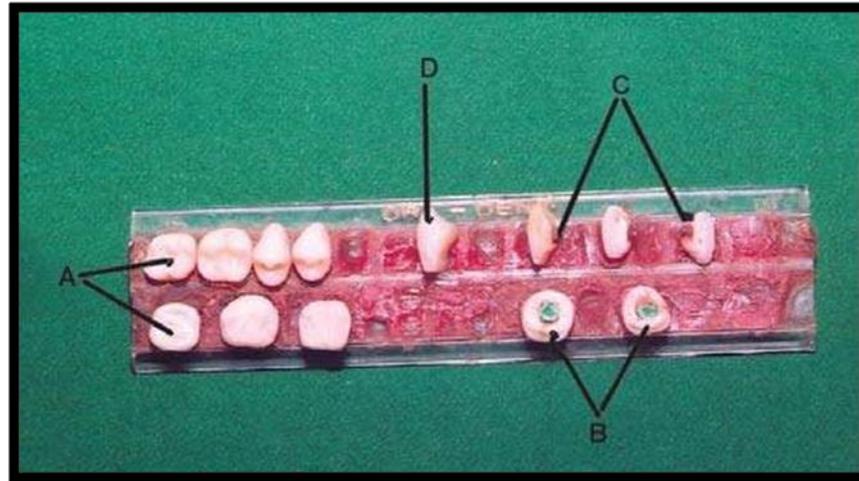
1-Porcelain Teeth

In anterior teeth, metal pins are embedded into porcelain for mechanical retention in denture base. In posterior teeth, diatoric holes are present in the ridge lap which when filled with denture base resin retains teeth in denture base



Advantages

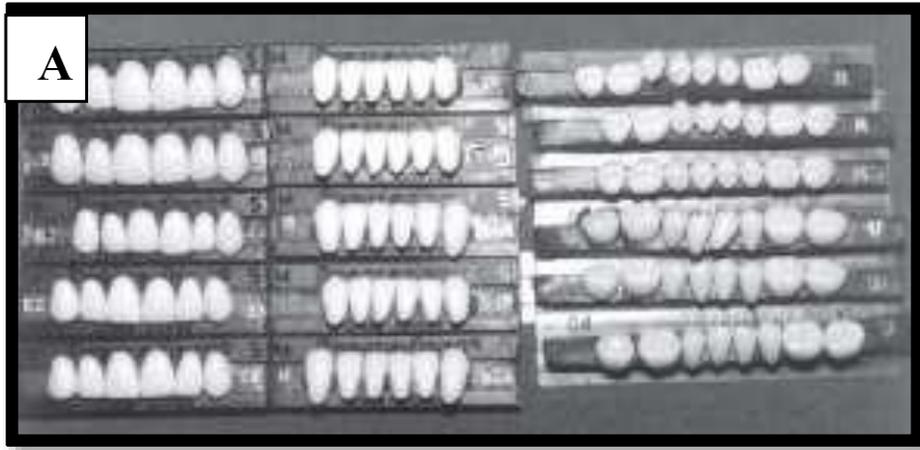
1. Wear is clinically insignificant.
2. Better retention of surface polish and finishing.



Disadvantages

1. Cause dangerous abrasion to opposing gold crowns and natural teeth.
2. Have sharp impact sound.
3. Chipping of teeth.
4. Difficulty in restoring surface polish after grinding.
5. Cannot be used in cases where available space is minimal

2-Resin Teeth



Advantages

1. Natural appearance and sound.
2. Ease of adjustment.
3. Resistance to breaking and chipping of teeth.
4. Capability to bond to most denture base resins.

Disadvantages

1. Less resistance to wear

2. Tendency to dull in appearance during use as a result of loss of surface luster.

3. Care should be taken when polishing the denture to prevent undesirable modifications in tooth contour

THANK

you