

COMPLETE DENTURE IMPRESSIONS

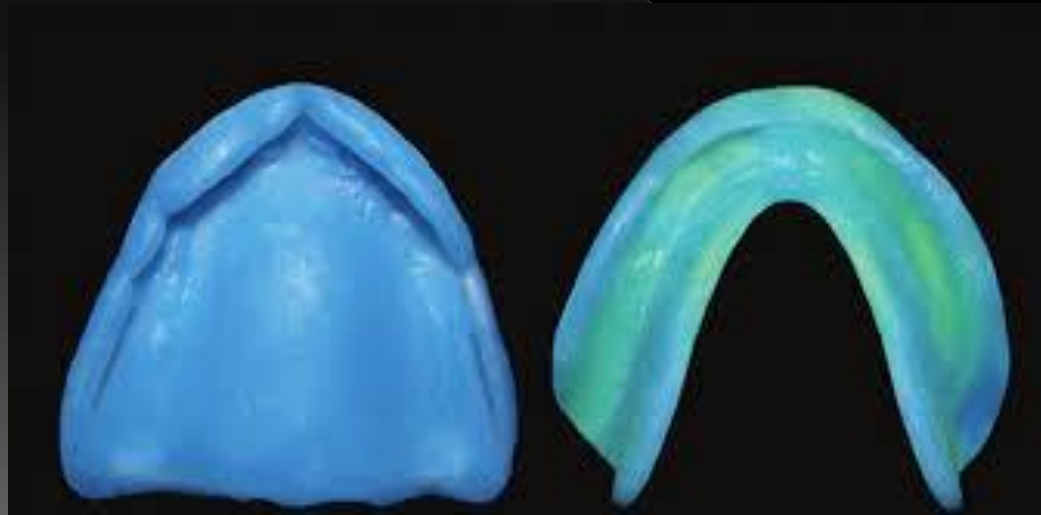
Dental Impression

Negative likeness of the teeth and/or edentulous areas where the teeth have been removed ,made in a plastic material which becomes relatively hard or set while in contact with these tissues.



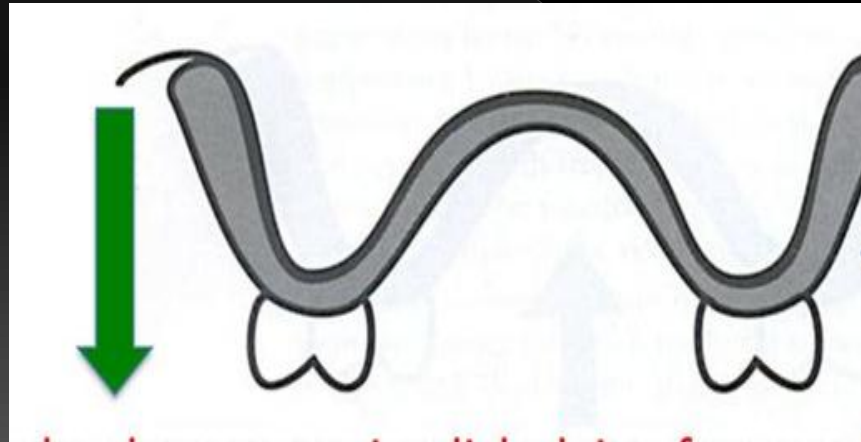
COMPLETE DENTURE IMPRESSION

Is a negative registration of the entire denture bearing, stabilizing and border seal areas of either the maxilla or the mandible present in the edentulous mouth.

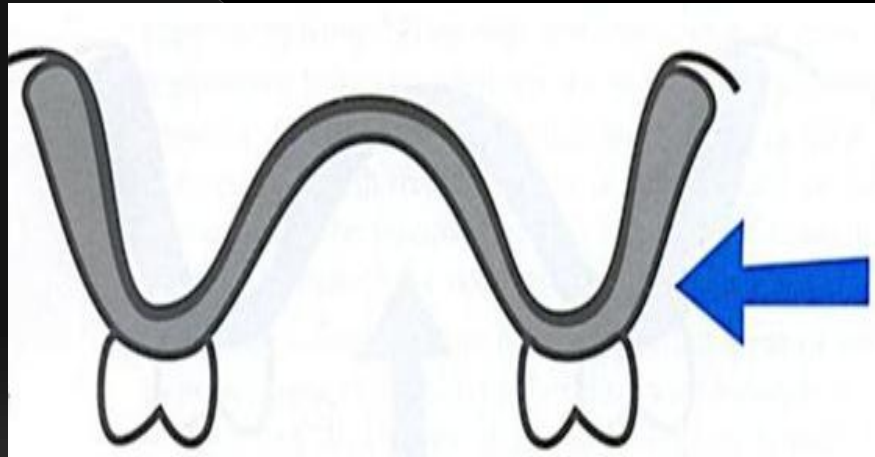


Objectives of impression making

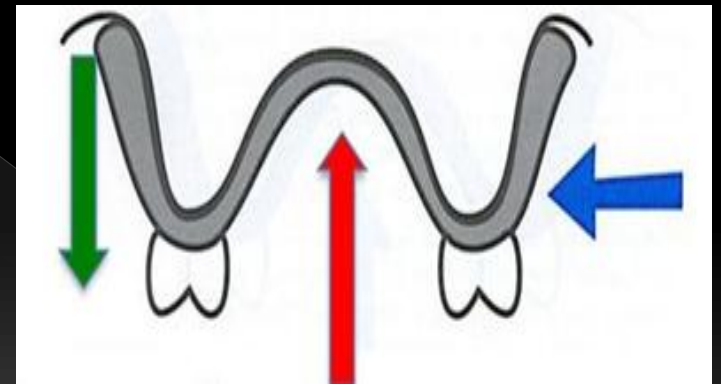
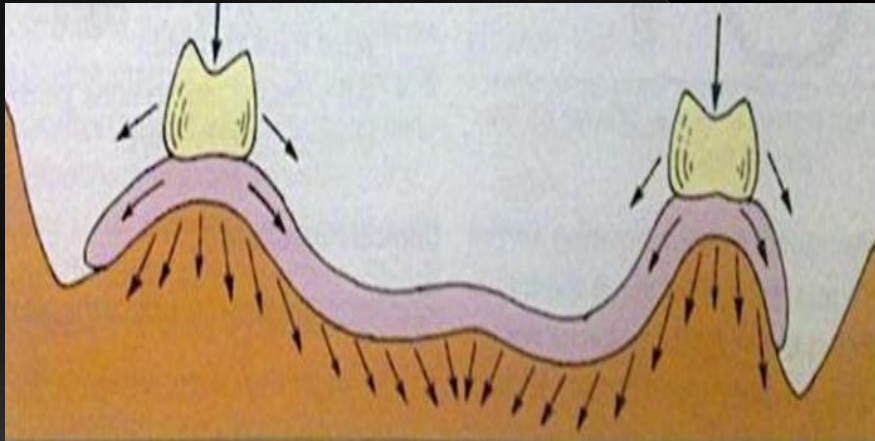
- ◎ **Retention**:- is the ability of the denture to withstand displacement against its path of insertion .



- ◎ **Stability**:- is the ability of the denture to withstand horizontal forces.



- ◎ **Support:-** In order to provide good support , the denture base should cover as much denture-bearing area as possible.



- ◎ **Aesthetics**:- Impression should perfectly reproduce the width and height of the entire sulcus for the proper fabrication of the flange
- ◎ **Preservation of remaining structures**:- Impression should record the details of the basal seat and the peripheral structures in an appropriate form to prevent injury to the oral tissues.

Primary Impression

- Is defined as an impression made for the purpose of diagnosis or for the construction of a special tray.
- It is the first impression made for the patient and from which the study cast was produced. These impressions are obtained by a stock tray.



MATERIALS USED FOR MAKIUNG PRIMARY IMPRESSION

1- Impression Compound

2- Alginate(Elastic Material)

3- Silicone Rubber Base(Putty Type).



Production of study cast

1-The primary cast is produced by pouring the primary impression with plaster which is the positive reproduction of the oral tissues.

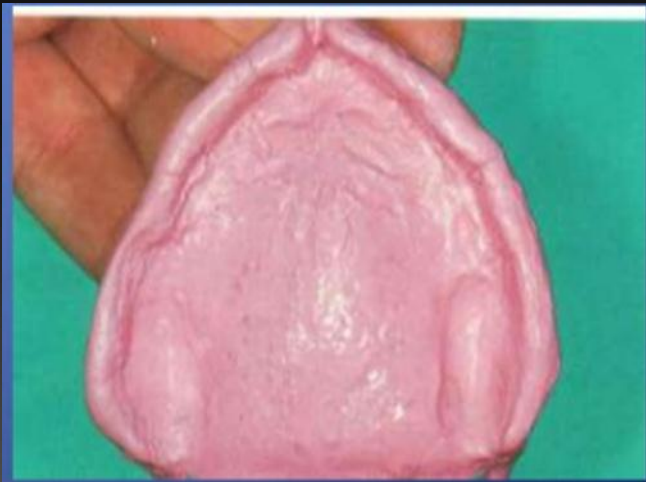
2-The plaster mixed with water by the saturation method in the rubber bowl and pour in the impression. When the plaster becomes hard, the cast is separated from the impression.

3-The special tray, which is used to make the final impression, will be constructed on the primary cast.



Final or Secondary impression

- ◎ It is a negative likeness or registration of the entire denture bearing, stabilizing area and border seal area of the mandible & maxilla for the purpose of fabricating a prosthesis.



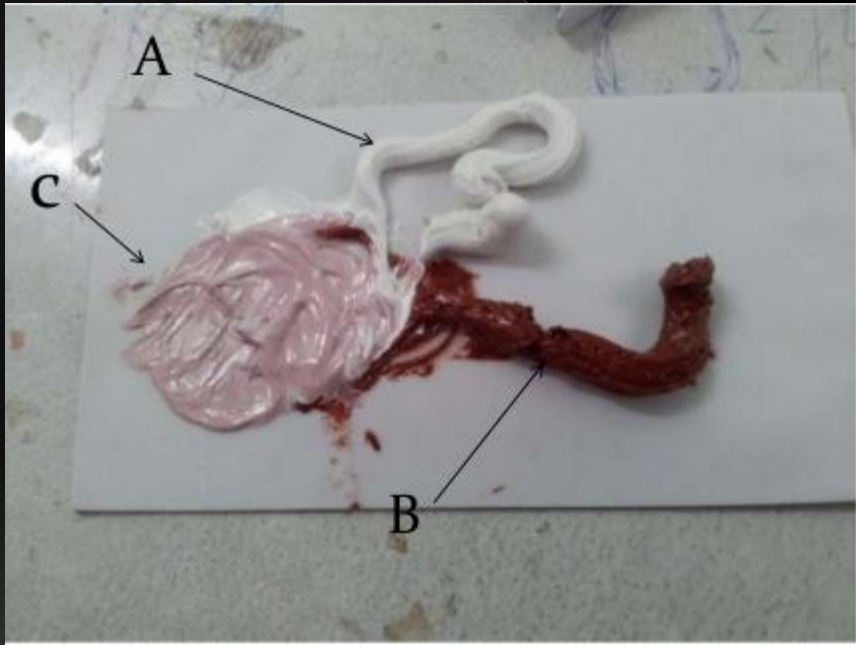
Master cast (definitive or final cast)

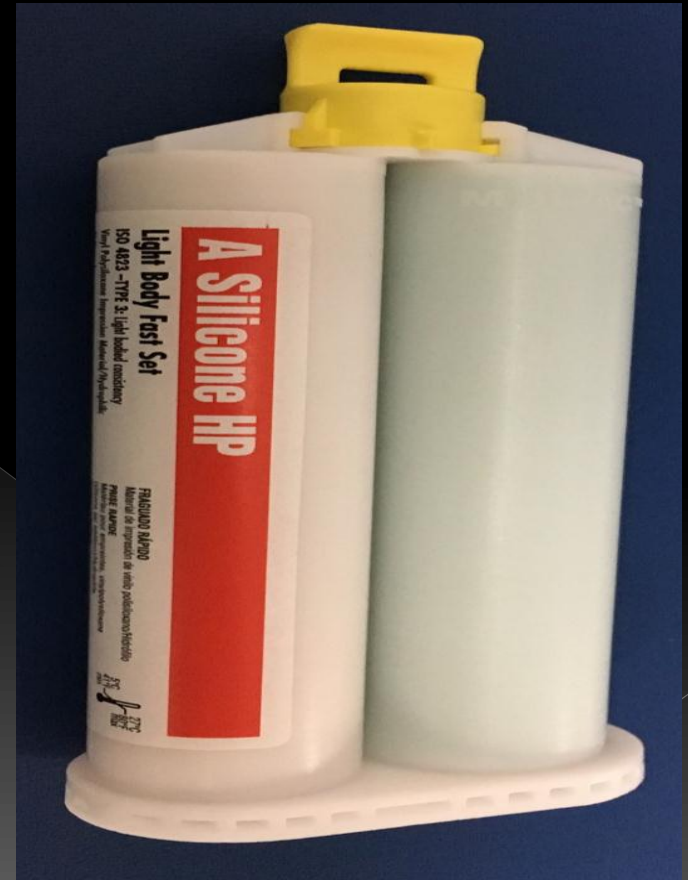
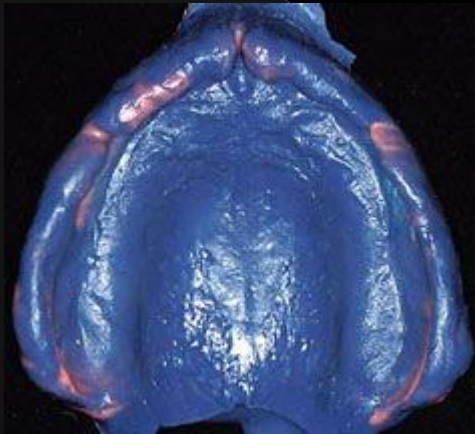
- ◉ A replica of the tooth surfaces, residual ridge areas and \or other parts of the dental arch and \or facial structures used to fabricate a dental restoration or prosthesis.



Materials used for final impression

- 1- zinc oxide eugenol impression material.
- 2-Alginate impression material.
- 3-Elastomers impression material(polysulfide, polyether and silicon).
- 4-Light body.





Techniques used for making final impression

1-Mucostatic impression technique (non pressure technique).

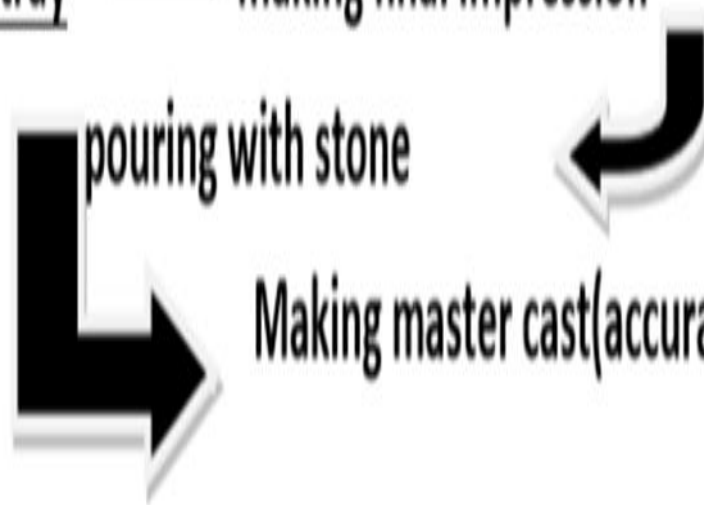
2-Function impression technique (pressure technique).

3-selective pressure impression technique.

Special tray → making final impression

pouring with stone

Making master cast (accurate details).





Boxing

Is the enclosure of an impression to produce the desired size & form of the base of the cast & to preserve desired details. Boxing impression can be used for primary & final impression for complete denture.

This procedure cannot usually be used on impression made from hydrocolloid materials (e.g. alginate) because the boxing wax will not adhere to the impression material & the impression material (alginate) will be distorted.

Advantages of boxing

- 1-To facilitate pouring the impression with plaster or stone.
- 2-Produce the desired size & form of the base of the cast (adequate thickness of the cast).
- 3- Preserve desired details & borders of the impression.
- 4- In the lower impression, reproduction of the lingual borders & tongue space easier

MATERIALS USED FOR BOXING

1- **Beading wax:** a strip of wax is attached all the way around the outside of the impression approximately (1-2 mm) below the border & sealed to it with wax knife

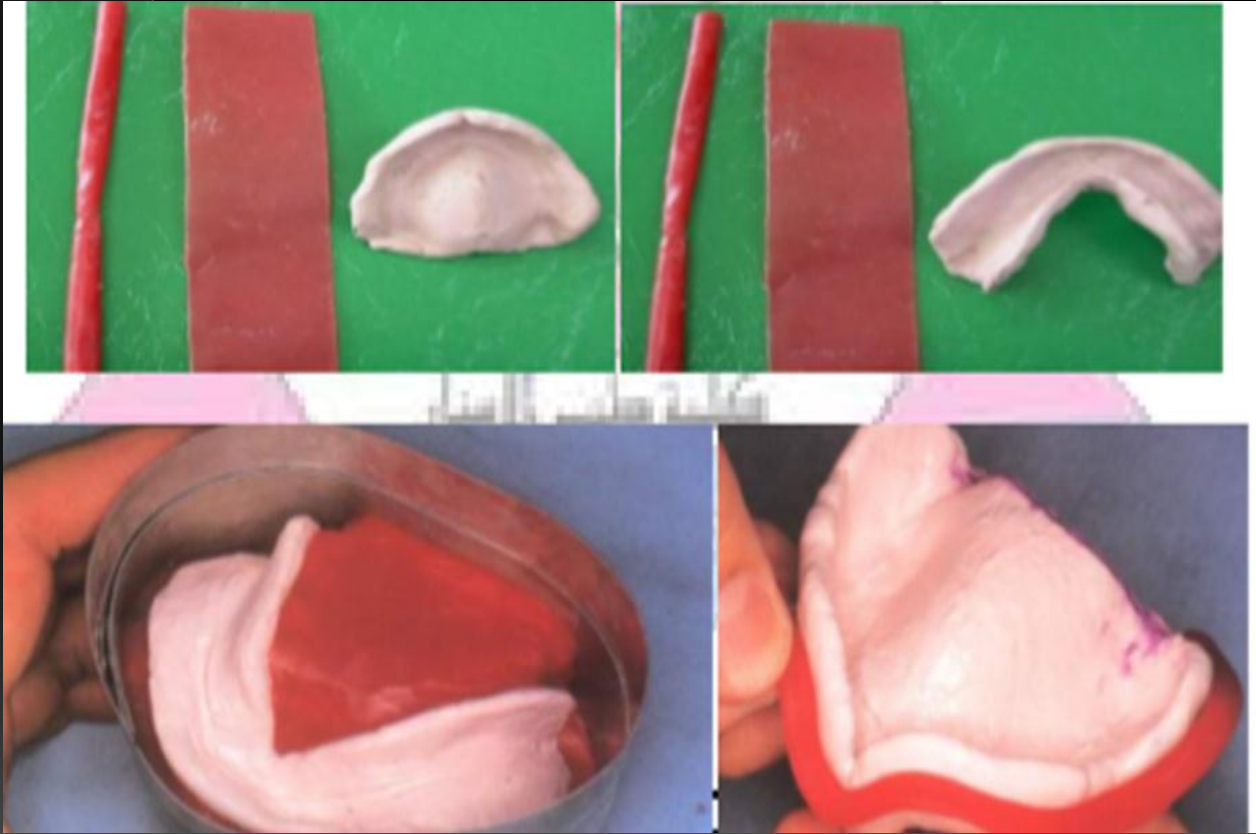


- ◎ 2- **Boxing wax** : a sheet of wax is used to make the vertical walls of the box & it is attached around the outside of the beading wax strip
- ◎ 3- **Base plate wax**: a sheet of wax can be used to fill the tongue space



- ◎ **Artificial stone** is mixed according to manufacturer's direction and sufficient stone is poured into the final impression so that the base of the cast will be from 10-15mm in thickness. The cast is called master cast.





COMMON FAULTS IN IMPRESSION MAKING

- 1-Poor selection of the tray and materials.
- 2-Insufficient material loaded in the tray.
- 3-Excessive material loaded in the tray.
- 4-Failure to press the tray completely to position(insufficient seating pressure or excessive seating pressure).
- 5-Incorrect position of the tray before finally seating it.

*Thank
you*

