

## Anatomical land mark of maxillary arch (2<sup>nd</sup> lec)

It comprise :

### 1. Supporting area

- A. primary stress bearing area
- B. secondary stress bearing area

### 2. Limiting structure

### 3. Relief area

**A. primary stress bearing area:** the area which are able to resist the vertical force of the occlusion

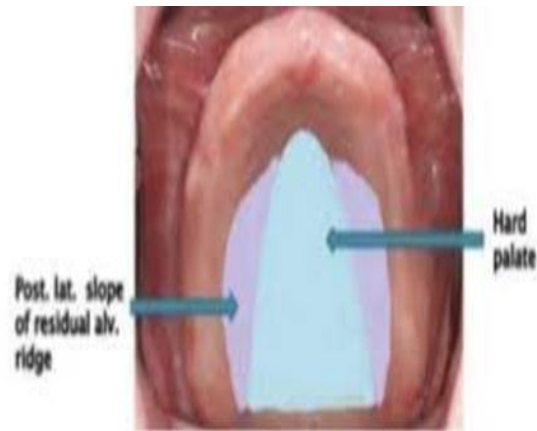
**It include :**

**1.maxillary tuberosity:** It is the distal end area of the residual ridge. It extends from 2nd molar area to the hamular notch.

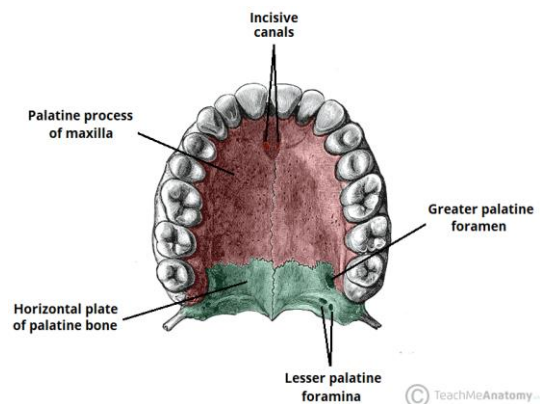


**2.lateral slopes of the residual alveolar ridge:** It is the portion of alveolar ridge and covering by the soft tissue

which remains following the removal of teeth. It resorbs rapidly following extraction and continues throughout life in a reduced rate.



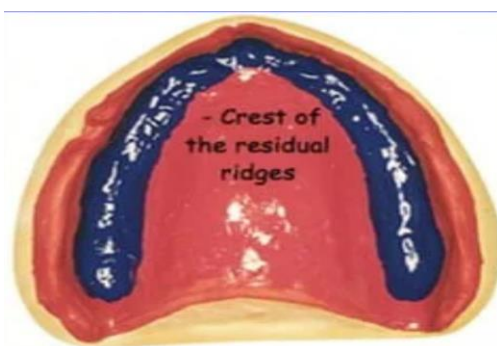
**3. Hard palate :**is made up of the anterior two- thirds of the palatal vault supported by bone (palatine processes of the maxillae and the horizontal plates of the palatine bones).



**B . Secondary stress bearing area :**the area that resist the lateral forces of the occlusion and can aid in the resistance to the vertical force

**It include:**

**1.The crest of alveolar ridge**



## 2.Rugae area

It is the irregular fibrous connective tissue located in the anterior third of the hard palate. Its consider secondary



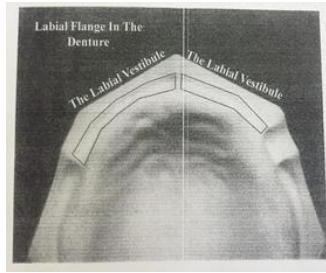
## 2.Limiting structure:

- A . labial frenum**
- B .Labial vestibule**
- C .buccal frenum**
- D .buccal frenum**
- E . Hamulur notch**
- F. posterior paltal seal**
- G .Vibrating line**

**A . labial frenum:** It is a fold of mucosa membrane at the median line, it contains no muscles, The labial frenum produces labial notch in the denture



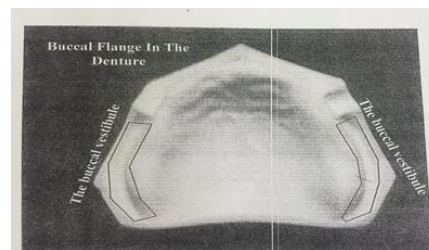
**B .Labial vestibule:** It extends from labial frenum to the buccal frenum on both sides and it is occupied by the labial flange of the denture.



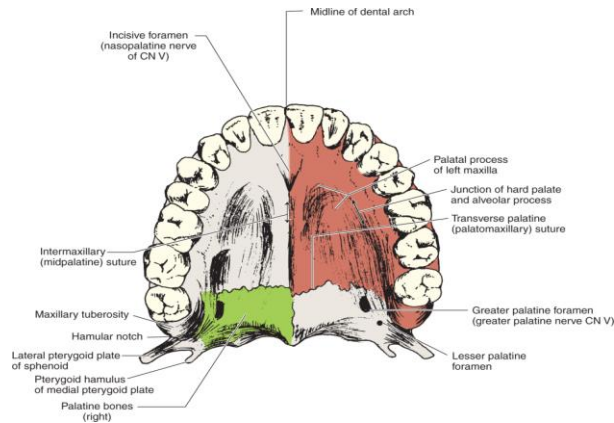
**C. Buccal frenum:** It is a fold of mucosa membrane may be single or multiple, usually contains no muscles and it produces buccal notch in the denture.



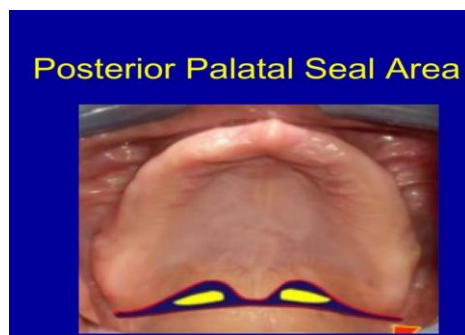
**D . buccal vestibule:** it is extends from the buccal frenum to the hamular notch bounded medially by the residual ridge and laterally by the cheek and it is occupied by the buccal flange of the denture.



**E. Hamular notch:** It is a depression situated between the maxillary tuberosity and the hamulus of medial pterygoid plate. The denture border should extend to the hamular notch.



**E. Posterior palatal seal area:** the soft tissue area beyond the junction of the hard and soft palate that contacts the posterior surface of denture base

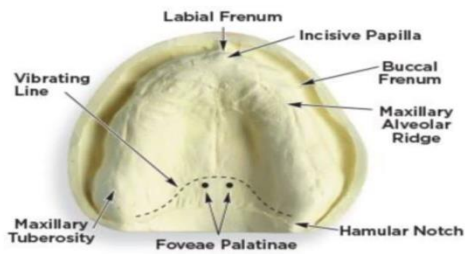


### **Function of PPS :**

1. Aids in retention by maintaining constant contact with the Soft palate during functional movements.
2. Prevent food accumulation between posterior border denture and Soft palate.
3. It reduce gag reflex as it prevents the formation of gap between the denture and soft palate.

**G. Vibrating line :** it is an imaginary line can be considered as the junction between the hard and soft palates and is important because it is the maximum posterior limit to the maxillary denture.

## Maxillary Landmarks



**Relief area :** the portion of the denture which is relieved to eliminate excessive pressure on specific parts of the denture supporting tissues.

**1.Incise papilla**

**2.Canine eminence**

**3.Median palatine raphe**

**4.fovae palatine**

**5. Torus palatinus**

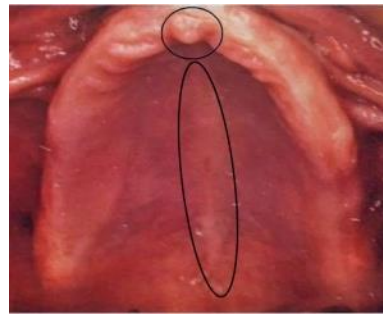
**1.Incise papilla :** This is an elevation of soft tissue covering the incisive foramen , it is behind and between the maxillary central incisors at the midline .It produced the incisive fossae in the impression and denture



**2. canine eminence :** a prominence on the surface of the superior bone caused by the socket of the canine.it need relief in the future.



**3.Mid palatine raphe:** It overlies the medial palatal suture; it is a slight elevation at the midline of the palate extending from the incisive papillae to the distal end of the hard palate.



**4.fovae palatine :**two small pits or depressions in the posterior aspect of the palate one on each side of the midline formed by the mucous gland ducts.



**5.Torus palatinus:** This is a hard bony enlargement that occurs in the midline of the roof of the mouth and it is found in 20% of the population, it is covered by a thin layer of mucous membrane and should be relieved to prevent the trauma tissue if the tori is too large, surgical removal is indicated.

