

Complete Denture Diagnosis & Treatment Planning

Medical History

- Be efficient - don't need extensive history of relatives
- Follow-up significant responses
- Note systemic conditions that impact on therapy (e.g. angina, hepatitis, Sjogren's syndrome)

Medical History

- Obtain physician consultations
- If some debilitating disease
 - ▣ discuss with instructor
 - ▣ to ensure acceptability

Clinical Exam

- Routine clinical exam
- Any neuromuscular conditions
- Any swelling, tumours
- Lip shape
- Lip support
- Nasolabial groove
- TMJ

Dental History

- How many dentures?
- How long worn?
- Age of present set?
- Satisfaction with dentures?
- Things patient likes - what they want changed

Intraoral Exam

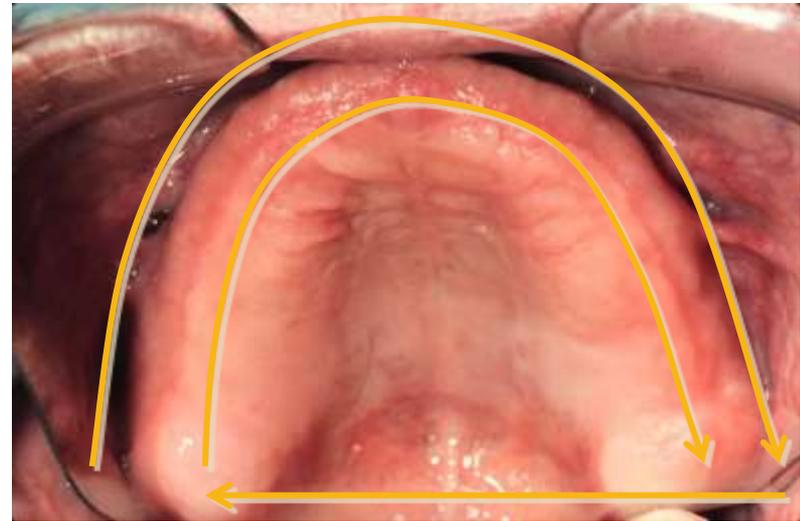
- Examine one arch at a time
 - ▣ Look, then write

Intraoral Exam

- General tissue health
 - Mucosa
 - attached / non-attached
 - Colour
 - Character
 - Displaceability

Intraoral Exam

- Specific Anatomical considerations
 - ▣ Examine systematically
 - ▣ Note significance of findings to therapy
 - ▣ Visual and tactile exam



Intraoral Exam

Maxilla

- ▣ Form of maxillary arch affects retention
- ▣ Advise the patient if retention will be compromised

Maxilla

- Labial/Buccal vestibule
 - ▣ Flat ridges
 - maximize retention by accurately registering the vestibule



Maxilla

- Frena - check prominence:
 - Buccal frenum
 - Usually broader
 - Thin labial frenum



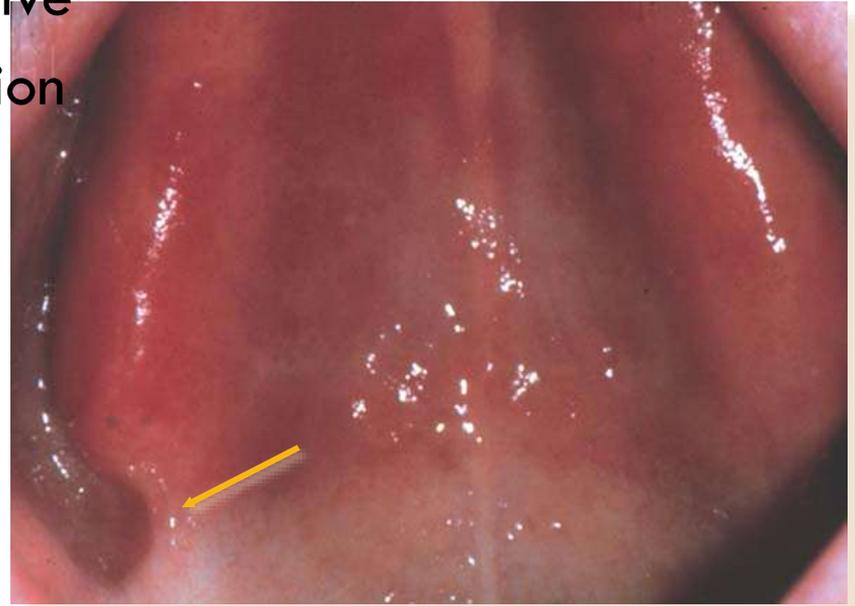
Maxilla

- Posterior border of denture:
 - ▣ Hamular notches
 - Posterior denture border
 - Palpate
 - Visually deceiving



Maxilla

- Posterior border of denture:
 - ▣ Hamular notches
 - Over extension - extreme pain
 - Under extension - non-retentive
 - Must be captured in impression



Maxilla

- Posterior border of denture
 - ▣ Vibrating line
 - Identified when patient says "ah"
 - Junction of movable & non-movable soft palate



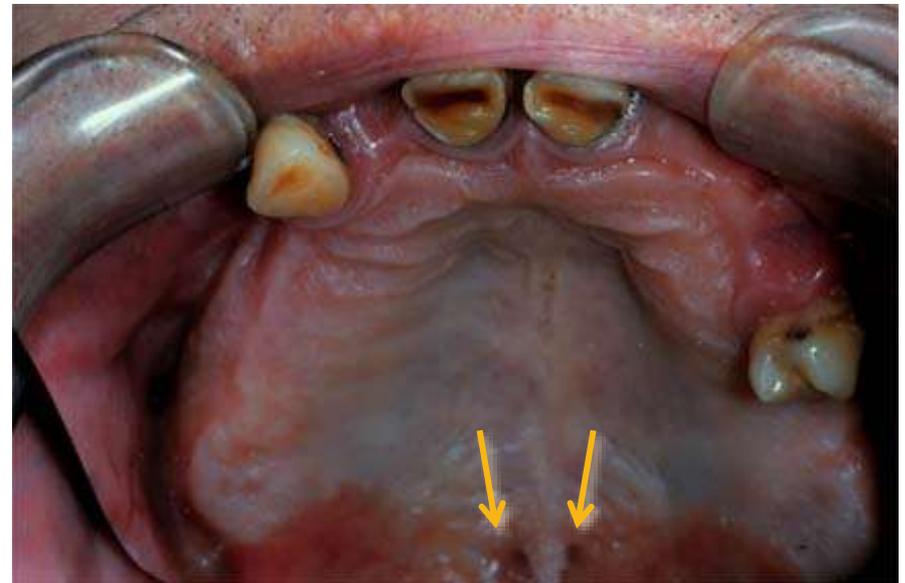
Maxilla

- Posterior border of denture
 - Vibrating line
 - If terminate on:
 - movable portion - displacement
 - hard palate - no retention

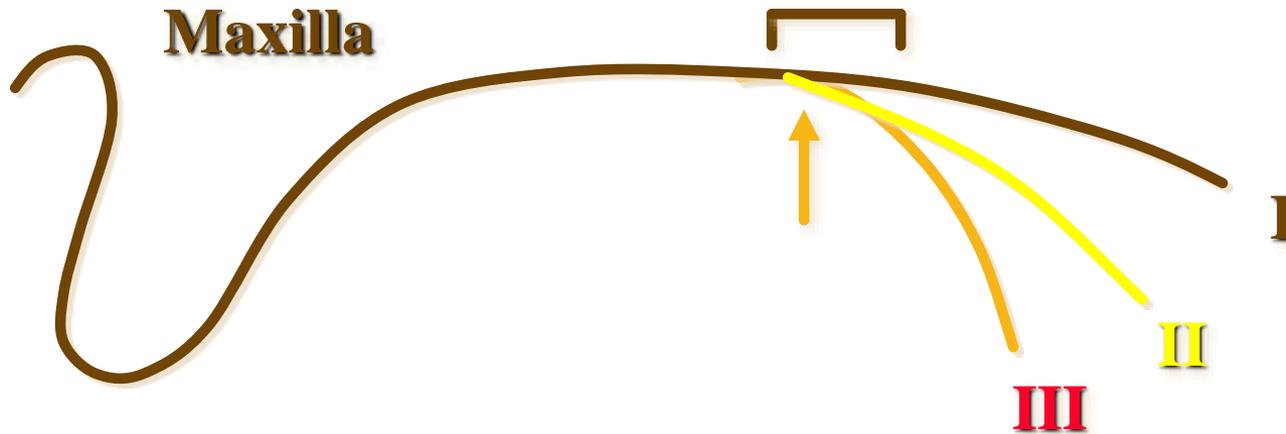


Maxilla

- **Vibrating line**
 - Fovea - close to vibrating line
 - Throat form can affect width



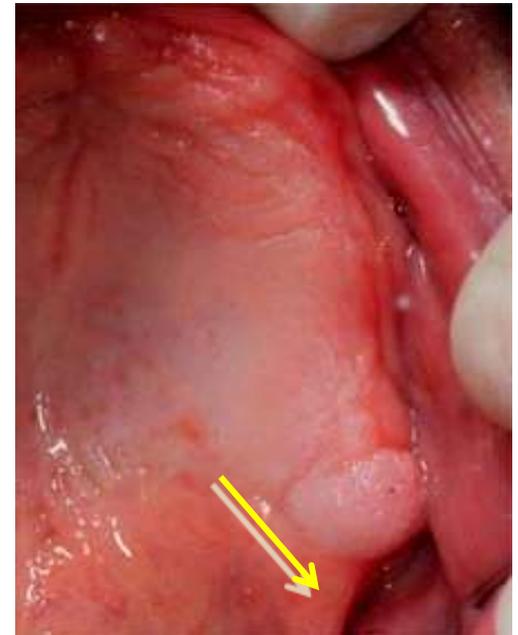
Palatal Throat Form



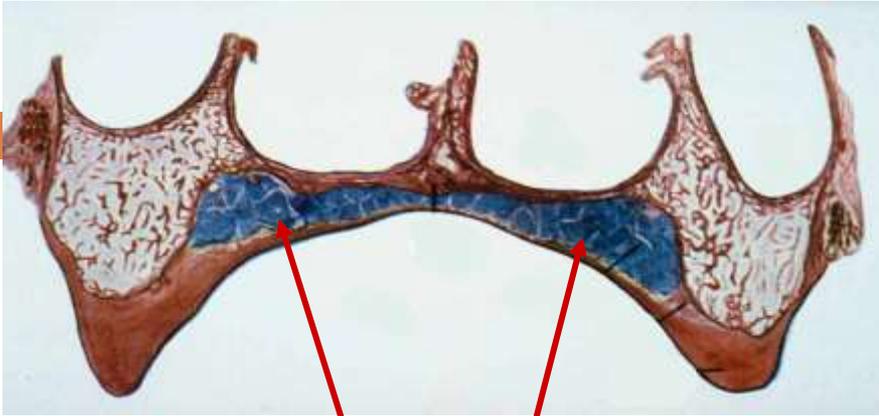
- *Flatter the soft palate, the broader the area of the vibrating line*

Maxilla

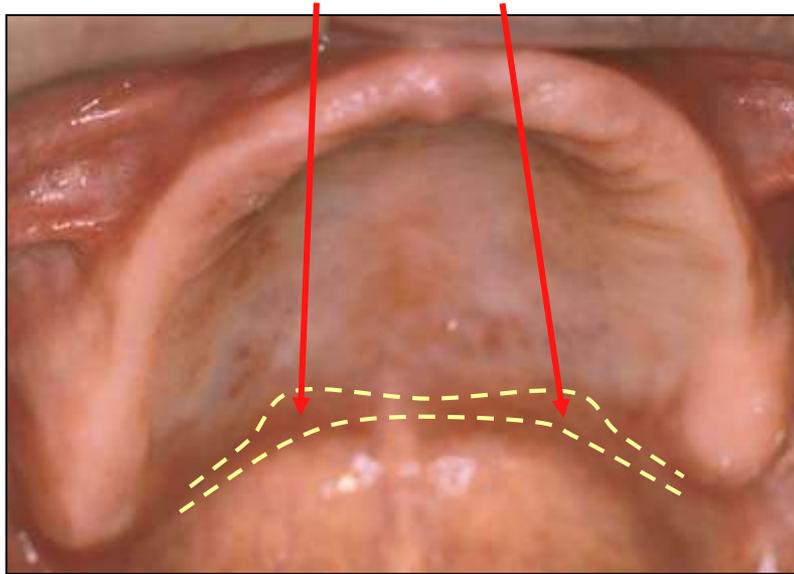
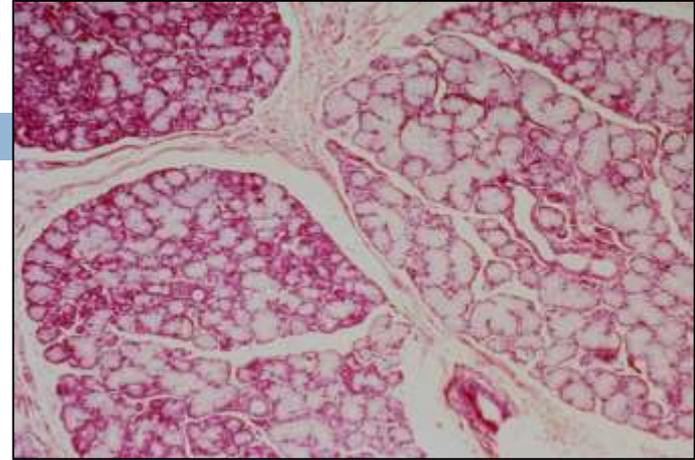
- Posterior border of denture:
 - ▣ Pterygomandibular raphe
 - Behind hamular notches - significant when prominent
 - Have patient open wide as possible
 - Can displace denture – requires relief in extreme cases



Posterior Palatal Seal



Glandular tissue



Posterior palatal seal

Posterior palatine salivary glands

- Permits compression of tissues
- Improves adaptation of denture to compensate for shrinkage of resin

Maxilla

- Tuberosity
 - ▣ Displaceability
 - ▣ Palpate for undercuts - if extreme, denture might not seat



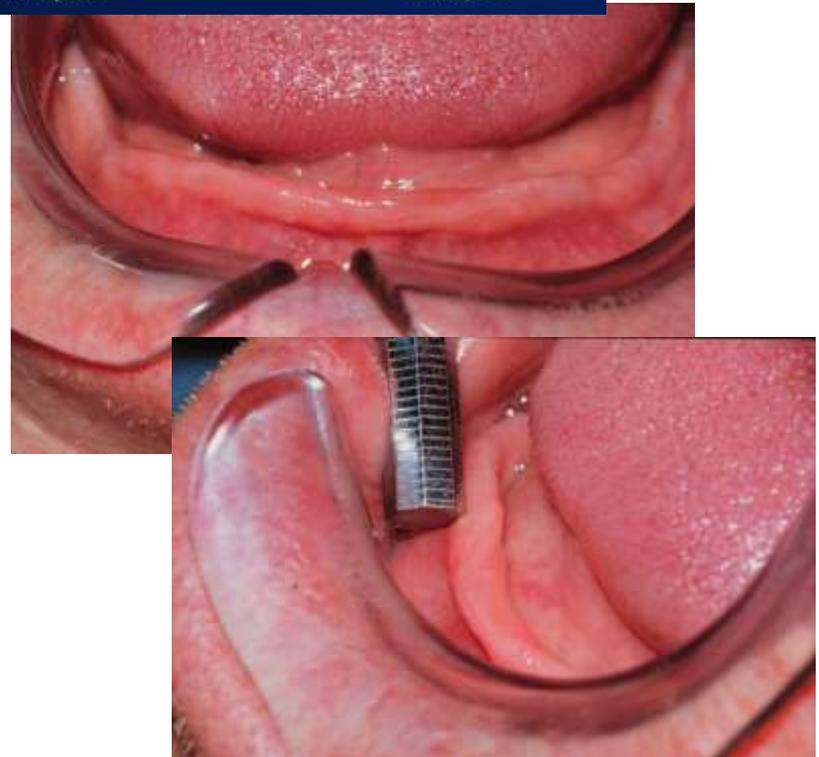
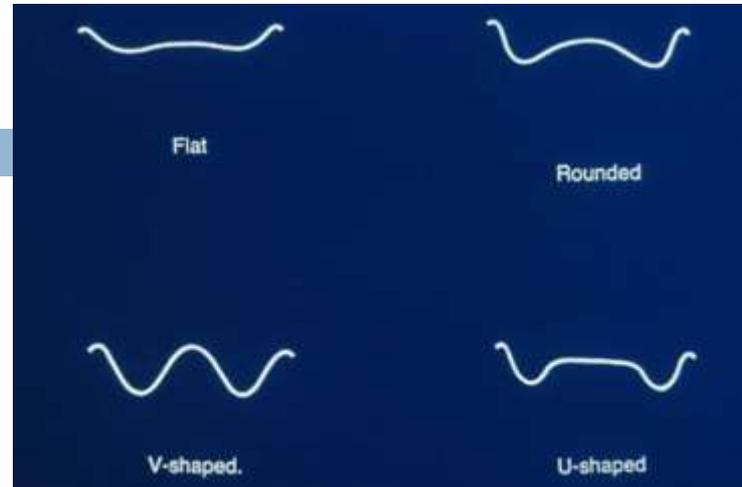
Maxilla

- Tuberosity
 - ▣ If enlarged with fibrous tissue
 - surgical reduction to make room for dentures



Maxilla

- Ridge form
 - U-shape best
 - Non-moveable best
 - Advise patient if poor
 - Affects:
 - retention
 - stability



Maxilla

- Labial/Buccal vestibule
 - ▣ 2-4 mm width
 - ▣ Zygomatic process
 - can be prominent



Maxilla: Midline

- Tori
- Mid palatal suture
 - ▣ Eliminate binding or fulcruming
 - ▣ Discomfort, loss of retention and possible fracture of the denture



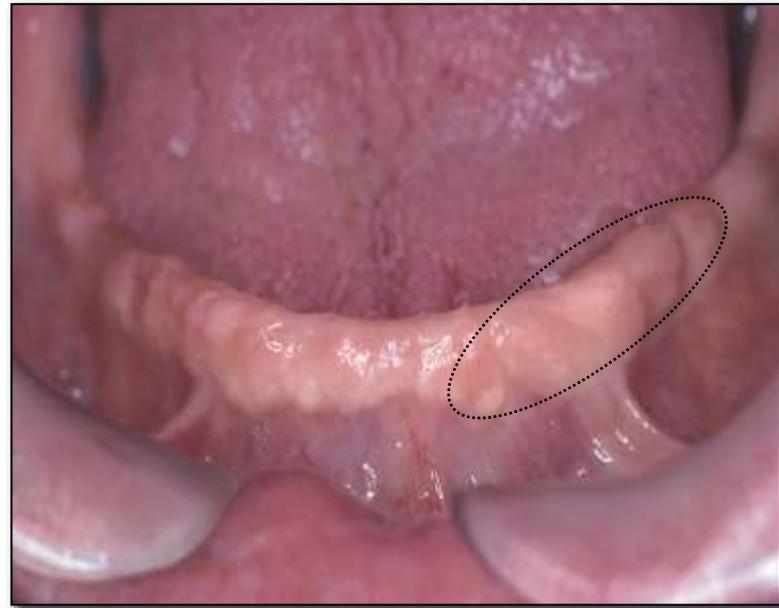
Mandibular Support Areas



Retromolar Pad



Buccal Shelf



Alveolar Process

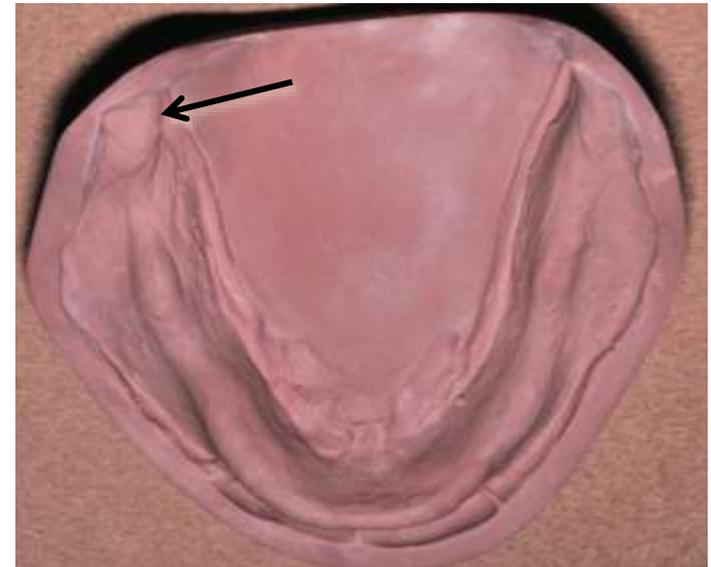
Mandible

- Ridge form more critical
 - ▣ Less surface area for retention
 - ▣ Movable tongue & floor
 - ▣ Displacement if denture is overextended
 - Inform patients



Mandible

- Retromolar pad
 - Terminal border of the denture base
 - Compressible soft tissue
 - Comfort
 - Peripheral seal
 - Must be captured in impression



Mandible

- Buccal shelf
 - Custom tray, border molded - should not feel edge extraorally
 - External oblique ridge
 - do not cover
 - Alginate will almost always overextend
 - Painful



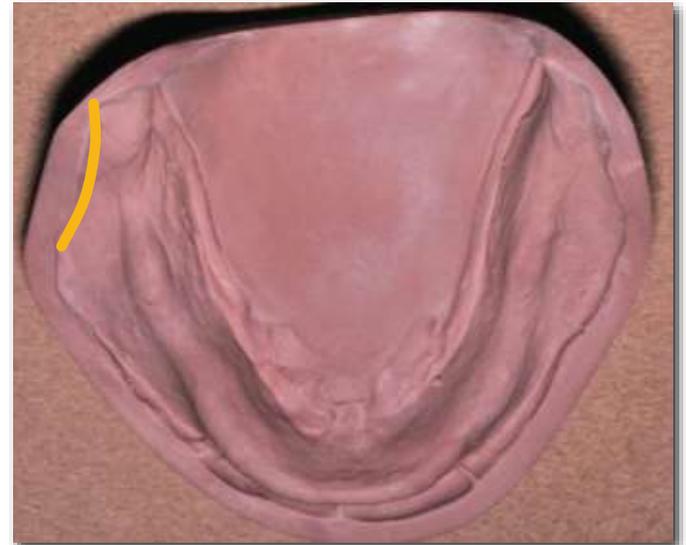
Mandible

- Labial/Buccal vestibule
 - ▣ Easy to overextend
 - ▣ Check with minimal manipulation of lips



Mandible

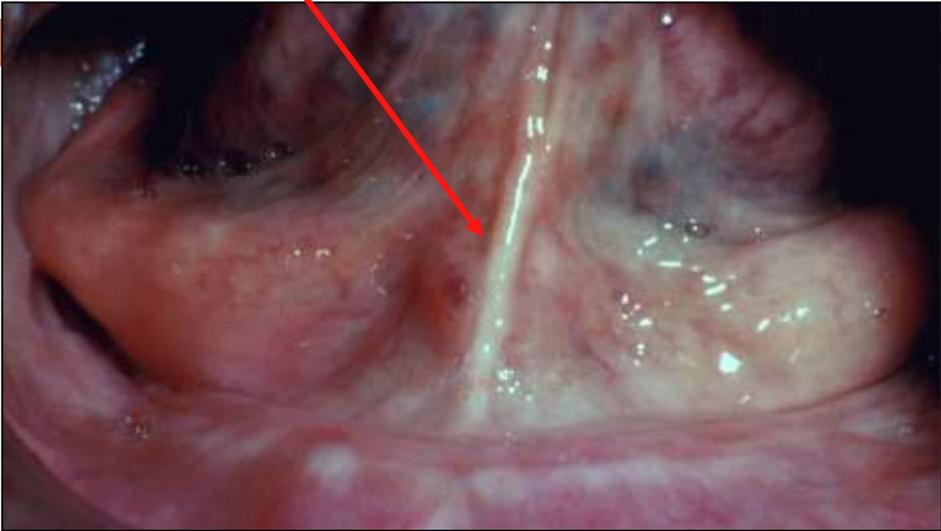
- **Masseter**
 - ▣ affects distobuccal border
 - ▣ if more prominent - concave border of denture



Mandible

- Frena
 - Labial and buccal frena
 - Narrow & wide respectively
 - Lingual frenum
 - Must allow for movement - or displaces easily

Lingual frenum



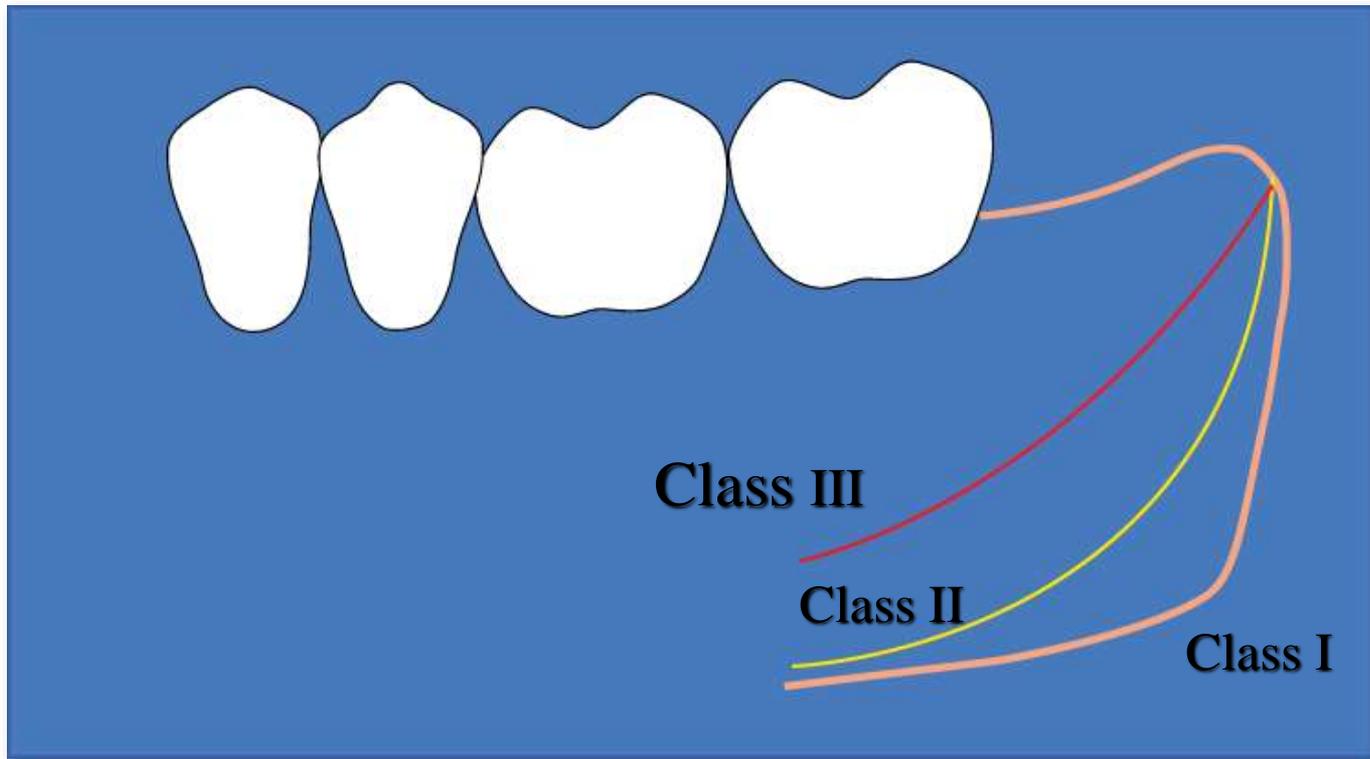
Buccal frenum

Mandible

- Retromylohyoid fossa
 - Need to capture
 - Especially with severely resorbed ridge



Lateral Throat Form



Mandible

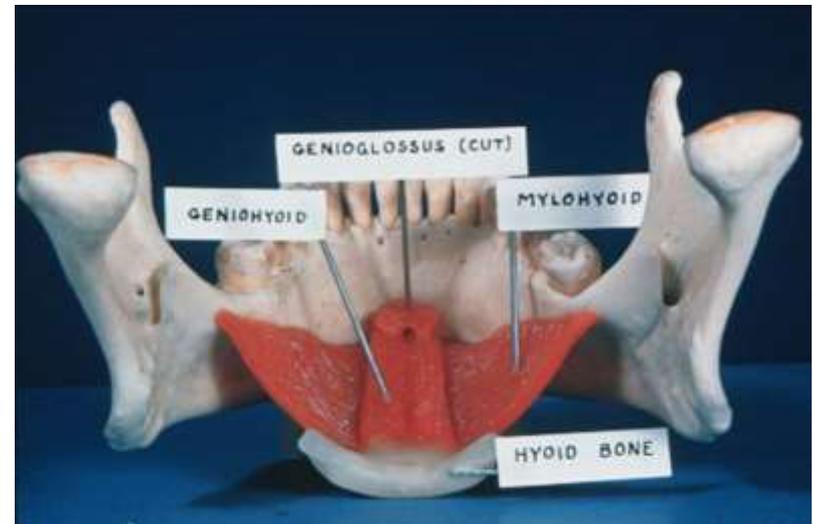
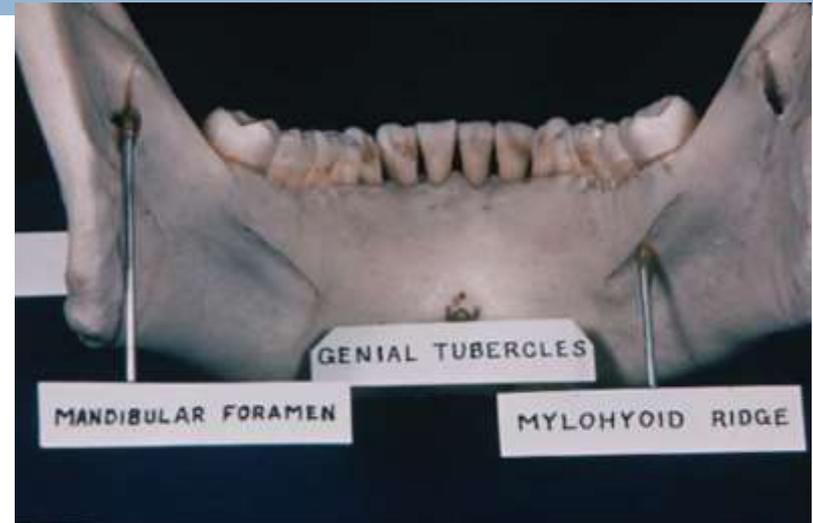
□ Mylohyoid Ridge

▣ Palpate

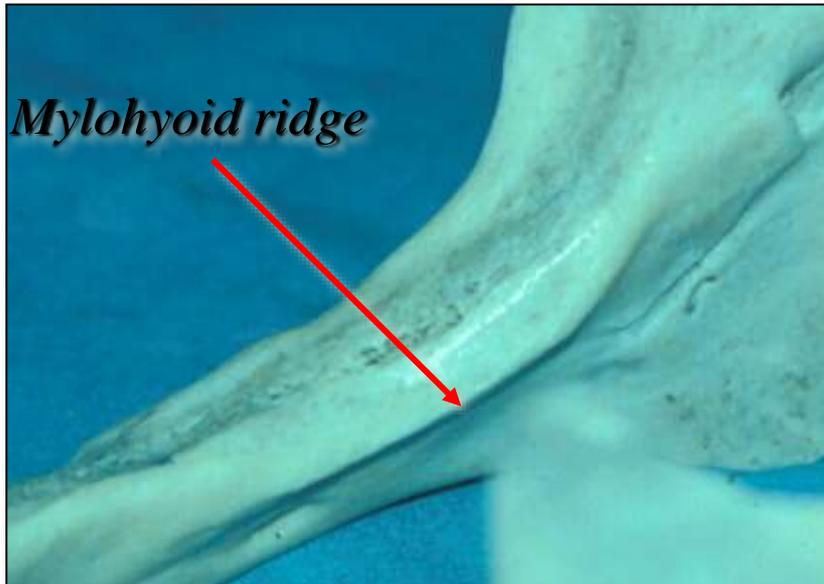
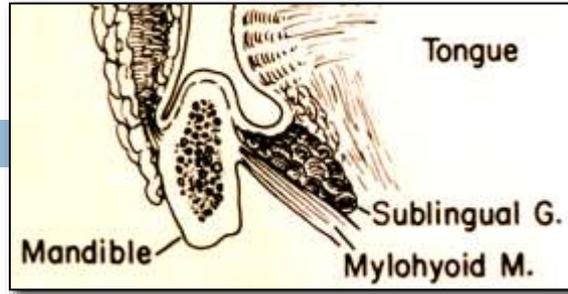
- If prominent, may need relief

□ Mylohyoid muscle

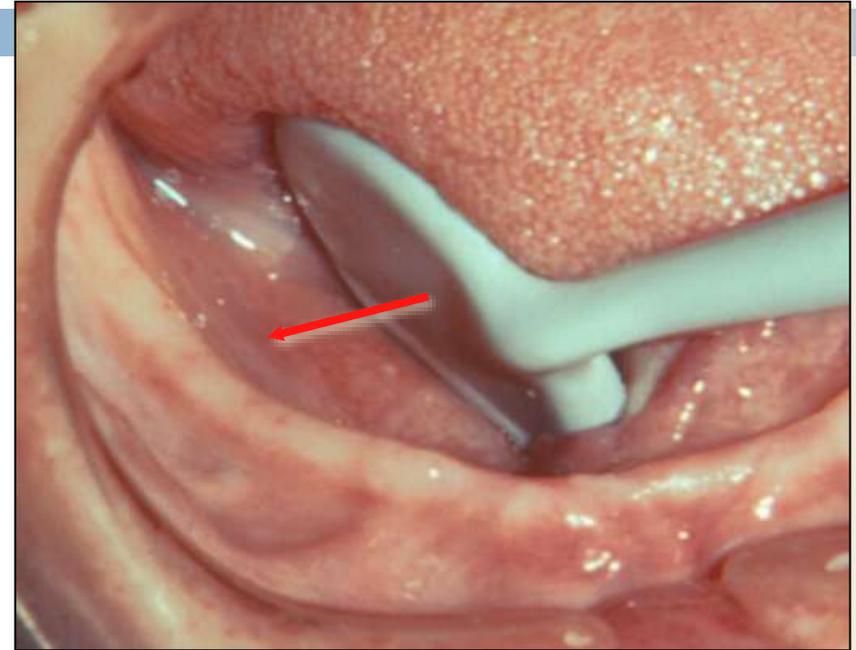
- Raises floor of mouth
- Differences between rest and activity
- Affects length



Residual Ridge Resorption (RRR)



Mylohyoid ridge can cause ulcers if it is a sharp



Mucosa in this region is poorly keratinized and prone to trauma

Mandible

- Tori
 - Rarely need surgery unless large
 - May require relief once dentures are delivered - advise patient

Mandible

- Genial tubercles
 - ▣ Bony insertion for the genioglossus muscle
 - ▣ May be projecting above the residual ridge if there has been severe resorption



Summary

- Anatomy:
 - ▣ Affects complete denture retention & stability
 - ▣ Should be captured in preliminary & final impressions
 - ▣ If poor, advise patient
 - ▣ Exercise today